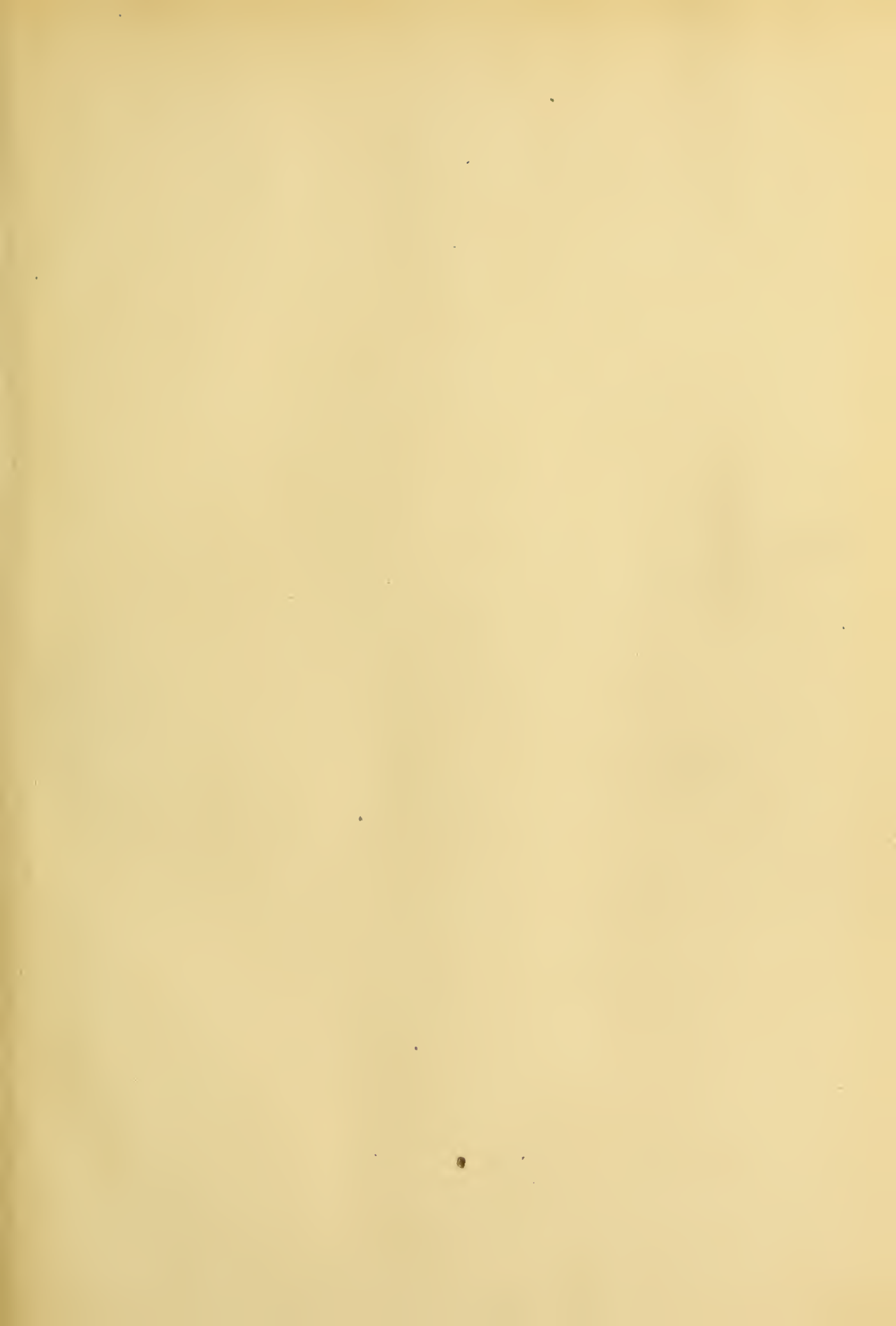


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OF THE

Missouri State Medical Association

THE OFFICIAL ORGAN OF THE STATE ASSOCIATION AND COMPONENT SOCIETIES
ISSUED MONTHLY UNDER DIRECTION OF THE PUBLICATION COMMITTEE

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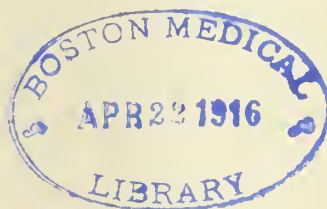
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JULY, 1912

Number 1

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EDITOR

PUBLICATION COMMITTEE { W. H. BREUER, M.D., Chairman
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PRESIDENT'S ADDRESS

A PLEA FOR THE SEPARATION OF STATE MEDICAL INTERESTS FROM POLITICS

ROBERT H. GOODIER, M.D.
STOUTSVILLE, MO.

As president of this association I want to advise that, in my judgment, the best interest of state and people would be conserved in having all medical appointments on state boards of health and in our eleemosynary institutions made under direct supervision or recommendation of the state medical organization. The members of the organized medical profession are fully as considerate of the humanitarian interests to be protected and conserved in the appointments of these services as the average politician class, and much more capable and discriminating in judgment relating to the professional attainments and fitness of said appointees. Believing this, I would respectfully urge that the accredited associations of organized medicine advocate this method of seeking to secure to the state and its interests the services of our most proficient and representative exponents.

It is plainly apparent that the best interests of state and citizen would be advanced in having these appointments made by such direction, under strict test of professional and moral qualifications without reference to political affiliation, professional bias or favor, and the tenure of office dependent on efficient service rather than on the flnx and change incident to quadrennial elections. As it is now, with every succeeding administration, whether an extension of the same political faith or otherwise, a new régime is in power with special obligations to repay, and as a consequence a political exodus makes place for the new army of occupation, and a general upheaval follows until the latter can systematize and adjust their new labors.

Now, I do not believe any sane, prudent judgment will contend that so necessarily unsettled a state, with its broken continuity of work, conduces to the best good or highest development in

the evolution of any responsible interest. Private and corporate enterprise are too prudent and wise to attempt such business methods, and the state should profit by their experience and example if it would keep true faith with and discharge its full measure of duty to the high humanitarian interests that appeal so loudly to its fostering care.

The State Board of Health, as it now exists, is both a health and examining board—vital and responsible in the functions of both departments. With the organization of the present board a distinct feature of advantage would at least seem to obtain in having the secretary's office located at the state capital. This identifies the office more closely with the legislative and executive branches of government, and gives the very material aid of direct and immediate consultation and support in matters of legal involvement with the attorney general's office. Personally, I am in favor of a national examining board, but until we get this I do not believe any good would accrue by dividing the State Board, as it now exists, and am not in favor of doing so, as it would only result in giving the state two boards or commissions where one is, or should be, equally efficient, and with considerable less expense to the state. The essential thing is to have men of individual fitness appointed to membership on the Board, not because they are Democrats or Republicans, regulars, eclectics or homeopaths, but rather for professional and moral ability to dignify the office and give the largest measure of fruitful labors in return to the state for the honor of its trust. The office cannot dignify the man, but the man should give honor to the office, and if he does not, the office is bigger than the man, and such a one can have little hope, if indeed such thought should occur to him, of giving any permanent influence or cultural standards of professional achievement in so responsible a service.

Another thing that may be stated with the emphasis of truth in relation to State Board of Health membership, and equally applicable to appointees in our eleemosynary institutions, is that the efficiency of capable, representative men

increases with their tenure of office — their usefulness becomes more effective by reason of their experience and understanding of the work and it is a serious mistake to be always educating new and untried men in positions of so responsible a trust.

Moreover, the Board is also an administrative body, and in the exercise of this function acquires a great deal of valuable cumulative knowledge through observation and experience — aside from that general knowledge expressed in definite principles of direction or by established precedent — much detail and technical information, especially as relates to differential methods or jurisdictional authority, and which cannot be transmitted or entailed. Now, all of this constitutes a large asset in the fruitfulness of board labors, as well as in its economy; but much of it is lost or confused by too frequent changes in the personnel of the Board, and must again all be studied out, tested and proved.

Again, much work in process of achievement is often abrogated or, at least, delayed in execution because of frequent rotation in boards, as reorganization and other matters pertinent to adjustment so engross members of the newly formed board, who, not being familiar with the line of work, and lacking the spirit of enthusiasm, put it aside for a more convenient season or utterly neglect it to take up some other phase of the work that appeals to them; besides, a permanently organized board can effect higher standards and more thorough organization of local county boards of health. In other words, an accredited veteran board is a strong arm of defense and protection to the public security, and can save the state considerable expense and accomplish a much more efficient service over an equally intelligent, but inexperienced one.

Equally important and, perhaps, should come even more immediately under the endorsement of organized medical associations, are the appointments to medical service in our state eleemosynary institutions for the care of the insane. I know of no more unfortunate or distressing condition, no exigency in human need calling for, if not the highest, at least so notable a class order and fitness of professional attainments, as the care and treatment of the state's insane wards. These unfortunates make strong appeal to and demand our highest consideration and sympathy, in some instances by natural ties expressed in consanguinity of blood; or, if removed from the incidence of this relational interest, at least near to us by "that touch of Nature that makes the whole world kin."

So closely blended and intermingled are the correlational duties of human destiny that the more fortunate must ever assume, and cannot escape, the moral responsibility imposed in the trust of being their brother's keeper.

Professional ministry to our public insane institutions, for obvious reasons, is not, perhaps,

an attractive or alluring field of labor to the average physician aside from its easy, well-appointed provisions from the hardships and competitive struggle for livelihood incident to private practice; and much less does it seem to invite the more capable and efficient of our neuropsychiatrists whose personal observation, study and clinical experience in psychopathic and allied diseases would seem to mark them as especially fitted for such institutional work.

These latter, however, generally enjoy or are building up an interesting and remunerative private practice along these lines, and are unwilling to sacrifice advantageous personal interest for the somewhat precarious tenure of situation in official state work. Term service of four years' appointment, subject to political handicaps and the imminent hazard of removal, however faithful the service, after one term is not very satisfactory to the permanent order and establishment of one's life work. And yet there are some to whom this service does appeal from a sense of humane and professional sympathy in the care and treatment of the unfortunates, as well as an appreciation of the opportunity for special observation and study along neuropsychopathic lines. However, it is an important work and full of opportunity for both study and service, and no one who seeks appointment as professional guardian over this alien class should be inspired by any less worthy motive than to do the best he can for their individual and collective welfare. The physician receiving such appointment should accept his entrusted charge with a silent pledge to devote his time and life's best labors to the fullest amelioration of their sore distress as far as in him lies. He may not be able to do all he would — so little, in fact, as at times to discourage effort; but courage is born of duty and faith is life's brightest shield, and out of sacrifice and service some fruits will ripen for their elcher and comfort. If duty does not stir this incentive in the physician's purpose why is he there, why would he want to be there, if his life is not in his work? To be merely a keeper for the emoluments of the office does not requite the ends of the state's interest, nor the measure of justice due the kept. Here is no place for the exercise of despotic power, and even where correction or discipline is necessary let it be done with firmness, but expressed in all gentleness of method. Even more so in that class of cases where dethroned reason has wandered too far, and become too alien to ever return and claim its vacant throne; for their wrongs are already too great in Nature's wreck to admit of any harshness of method or abuse of neglect through our instrumentality.

Now let it be distinctly understood in what I have said, or may yet say, that I am void of giving the least offence or of attempting to veil a criticism of any one, for I am in possession of no information that would provoke me to such a

course, and, if I was I would not adopt tactics of indirection or innuendo to vent a spleen. Moreover, I am persuaded from general knowledge that our state hospitals for the insane are as capably manned and as efficient in service as the average similar institution in other states.

But this is not the issue; the burning, vital question that presses is this: Is all done that should or might be done both by the state and the profession for the care, restoration and prevention of insanity, not only in and for Missouri, but wherever our ministry is evoked? Are the minds of our professional exponents in this work luminous with the light and zeal of discovery — is the renaissance of highest optimism and faith on and a part of them? Is the searchlight of their mental lenses focused on this realm of cause and effect to catch elusive truths, precious as the hidden pearls, amid the obscurity of fateful investment? Is a properly directed clinical and research study being made in this departmental work as in other lines of our ministry? Again, are we moving onward to the evolution of higher knowledge, nobler achievements, or are we standing with folded arms and helpless reach while our friends and those yet nearer to us are falling under life's most fateful curse?

I am satisfied that medical appointments to these institutions are carefully and considerately made by the state's chief executive, and under the witness of general testamentary recommendation. I am also aware that appointees to these positions of trust are for the most part reputable professional gentlemen, and usually carry the weight of more or less professional indorsement in addition to a considerable political influence. The governor has too much at stake to exercise less than the most cautiously prudent judgment in the favors of executive patronage, but sometimes his administrative judgment is misled by the veneer of professional address or the preponderance of political influence, pressing recognition in the interest of some favorite, not always expressing the weight of professional merit. Again, it often happens, some of our most accredited and proficient representatives lack the political alignment so necessary to give due prominence to their claims.

What we want in these institutions are men of the most efficient and reputable attainments, capable of making original research and scientific investigation. Men whose enthusiasm and zeal for study make them not only capable in differentiating and classifying mental types, but whose training and experience will enable them to note the various phases of psychic phenomena and deduce such practical knowledge covering methods of treatment and prevention as will give our faith larger tokens in both the cure and prophylaxis of insanity. If we have such men now in charge of these institutions let us move to keep them there and by extending their opportunity

for usefulness we, also, increase the measure of their fruitful labors to the insane wards of the state.

However, if, as usual, a new political régime, whether of one political faith or another, sounds the tocsin of their retreat, let the state organized societies of medicine seek to have some recognition not only in filling these positions but in making the appointments permanent during efficient service.

As to the means and measure of direction to be exercised by the organized profession in its indorsement of these appointees there might be several methods of adoption. The best that suggests itself to my mind at present is to have an accredited examining board composed of our most reputable and advanced alienists and psychiatrists, before whom all applicants for medical positions in hospitals for the insane shall be examined and certificates of proficiency issued to such as express merit. Those seeking superintendencies must, in addition, have had some personal experience in the treatment of the insane, and a special knowledge of psychopathic diseases from clinical study, and research investigation: evidence of which is to be furnished in some published paper or report on some phase of insanity, and of sufficient interest to attract professional attention. This professional qualification together with good moral character and kind, active capacity, would constitute eligible candidates for institutional superintendents and staff assistants from whom the governor might make his appointments. Let it also be required of these when elected to follow up their clinical studies and research investigations, and report annually the results of their labors to both the state and the organized societies of medicine. Moreover, it should be required of the staff assistants that they show aptitude and capacity as essential complementary aids to the superintendent's labors, and as additional incentive let them, if showing proper qualifications, be in line of promotion in the order of preferred ability. And such service when established to be as permanent as good behavior and efficient ministry would deserve and the interest of the insane would demand.

I believe in a classified system in the care and treatment of the insane, and think it would be economy on the part of the state to make a class division based on grade intensity of mental perversion, and result in much more mental rehabilitation. At any rate, I am persuaded the state should establish a rest or corrective hospital for the treatment of mild psychopathic disorders without the stigma attached of being inmates of an insane asylum. I would also urge class segregation of the criminal insane, keeping them entirely separated from the more morally disposed, and believe it is the state's duty to do so.

Again, I am impressed that the highest and best conservation of interest in so important a

work both to the state and the insane would be better expressed by having an accredited, efficient business manager, other than a physician, appointed in charge of the economic administration of the institution, leaving the medical superintendent and his assistants untrammelled in ministry to the needs of the insane. The business and economic care of one of these state institutions is a sufficiently heavy burden to impose on one man, and if that man be the medical superintendent, I can but be impressed with the fact that his time and labors are so much engrossed by this character of work as to seriously interfere and detract with his more direct and professional obligations in the proper care and treatment of the insane.

Further, I am constrained to advocate the creation, by the state, of the office of medical consultant or director to our insane hospitals, in addition to the usual medical complement in the service of these institutions. Such consultant to be a physician of eminent ability and accredited both by special knowledge and experience in neuropsychopathic work, and whose duty it would be to make bimonthly visits of inspection and direction to the several state hospitals for the insane of not less than three full days for each visit. And as additional duties let him be required to deliver lectures on subjects relating to the cause, control and prevention of insanity to the students of the State University and to each of the accredited academic colleges in the state and to the School Teachers Annual Association.

Too much emphasis cannot be laid on the importance of the state in educating the people in the causes and prevention of insanity, and the cost of doing so will be small compared to the expense of caring for and maintaining a large increase of this class of unfortunates in the future if it is not done. May the state awaken to its responsible duty and send forth teachers to declare the truth, and the whole truth, before the people sin away their day of grace and fall under life's most fateful curse.

The relation of cause and effect is natural and absolute in all the realms and kingdoms of material Nature in the physical cosmos. From the lowest to the highest forms of matter a primal basic law is operable and supreme.

A given cause must and ever will produce its sequent effect with the same precision and inerrancy that marks the change of seasons or directs the stars in their course. When we learn to intelligently appreciate and respect the absolute and inerrant force of this natural law of our being then may we see not only the highest attainments of physical culture, but realize the moral beauty and grace of life's best expression.

Insanity has its causal factors, both exciting and predisposing, which must, in order to forefend against, be studied, emphasized and taught. The stableness of mind, like the body, depends on a good nutritional integrity, and whatever disturbs, vitiates or destroys this elemental vitalism lowers and perverts functional activity in mind, as in the body, and in corresponding ratio to the force of the operating effect and the regenerative power of Nature's energy to overcome and revitalize. If this regenerative energy is overcome, and Nature is unable to reestablish mental harmony, then we have degenerative changes plus functional perversion in the rhythmic scale of psychic phenomena. Syphilis and alcoholism, as exciting causes, are two of life's greatest vandal wreckers and the mind's greatest spoilers, and are both preventable evils. Strenuous burdens and mental strain in the struggle for existence, together with their corresponding depressions, excitations and disappointments incident to the abnormal relations of our socio-economic industrialism, are chief predisposing causes in the expression of insanity. The game of life is too high tensioned, too unequal in its chances and too fatefully invested for Nature's hardihood. She breaks at some point of her complemental harmony, sooner or later, and happily if in her physical rather than in her psychical economy.

Insanity is a fearful curse, one that must appal us when we consider both its fateful ravages and increasing prevalence.

Life is full of the defective types, and our humanitarian methods are defective not only in their assimilation but in the more dangerous encouragement of their procreation. Sterilization of certain types of this class, both as a defensive and conservative measure, may strike our sense of personal justice as too drastic in method, but within definite limits it has strong claims for adoption. Its moral obligation, in the absence of any other efficient but less revolutionary means, strongly appeals to reason, and sentiment should be reconciled for the sake of the universal good.

For even Nature makes strong, definite effort to eliminate defective types, and sterilization is her method. Let us study Nature, and in the wisdom of her propaganda, expressed in the most unmistakable language to our every-day experience, learn that reversion of type is an abhorrence in natural genesis.

Segregation, in itself, is not a practical or efficient method for obvious reasons, and as between the two plans justice is more tempered with mercy in the sterilization process. I am also an advocate of the cultural development and expression of life through the science of eugenics, but realize that before its stupendous truths can become the heritage of man, he must be educated

in much moral and intellectual enlightenment. He must be conscious first of his responsibility to the living and to the unborn, especially such as are issues of his own procreative loins. This science, however, while wisely expressed, and may be addressed to the higher developmental order of our domestic animals and in the vegetable kingdom, yet it seems its principles cannot be applied or rather made to obtain in the improved evolution and conservation of the human family where it should be most intelligently expressed.

Is there then no balm in Gilead, no prophylaxis against the alarming increase and prevalence of insanity?

I answer yes, if the people will love light better than darkness and life rather than death; and I insist that along with the state's provision for the care and treatment of its insane that it, also, give serious consideration to the prevention of insanity. That intelligent effort be made by the state through medical direction to make prominent the chief causal factors of this condition, as well as to educate the people in the prophylaxis of life's best security. Insanity is largely preventable and the state should be impressed with this important fact that it might become the patron to a larger scientific investigation and personal research work by physicians in the nosology and etiology of this and allied disorders. Prevention is not only rational, but the most natural and economical provision of state responsibility in dealing with this subject. And as a stimulus to a more comprehensive and exhaustive study in these special lines the state might well afford to offer some substantial award either honorary or pecuniary or both, for the best clinical and pathologic interpretation of these conditions. At least the state could appoint a commission of expert psychiatrists and alienists to make comprehensive study and report of the causes and prevention of the psychoses with special reference to the insidious incipency of defective mental types in children.

In conclusion let me say that the realm of psychologic phenomena is yet a virginal bourn—its ground all fallow for the ploughshare of professional investigation. It is true there are some blazed paths in its domain, but they are too uncertain in direction, and, in most respects, too dim of trail for guidance to any but the boldest explorers and those of largest special knowledge, and even to these in the most tentative methods of experimentation.

But God speed the day and the man of heart and brain who will put his seal of conquest on its goals of truth.

ORIGINAL ARTICLES

RECOGNITION AND TREATMENT OF THE EARLY MANIFESTATIONS OF MENTAL DISEASES

Oration on Medicine *

C. R. WOODSON, M.D.

ST. JOSEPH, MO.

One of the most important questions that confront the medical profession at this day is the recognition of the early manifestation of mental diseases, and their care and treatment. The least to be considered in the résumé of these conditions is a brief consideration of the legal status of such conditions.

1. The individual social responsibility, or rights as a citizen.

2. Its testamentary capacity.

3. The individual's criminal responsibility.

If mentally irresponsible an early recognition with proper care and treatment may and will prevent many unpleasant complications.

If not well mentally, or if insane, society is or may be endangered at any moment, property may be squandered or fortunes wrecked, reputations may be blasted or families disgraced. The testamentary capacity impaired or destroyed, an early recognition may prevent expensive endless and unjust litigation and unjust disposition of property, and so often without consideration, may prevent violation of the criminal code, the loss of life and greater or lesser crimes, as well as expense for defense and the common wealth. The just or unjust criticism for failure to properly care for: as well as the propagation of its species by transmissibility. The recognition of the early manifestation will be detected in the border-land by the experienced and observing alienist. The states of mental abstraction, the evidence of mental pain, the insomnia slight or pronounced, the changing from the normal self, unnatural estrangements, lack of initiative or "go-a-head-i-tive-ness," hesitation and doubt, thoughts dwelling on self, fear or dread of something to follow, evidence of worry, or loading beyond a healthy carrying capacity, lack of interest in business or occupation; and even short of delusions or hallucinations, should be recognized.

The importance of an early recognition primarily should be for treatment and protection of the affected individual. Insomnia and work with excessive worry have a damaging effect on the brain and nervous system, and if pronounced they lessen the carrying and may, if continued,

* Read in the General Session of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

overcome the resisting capacity. Marked and continuous mental depression with partial or complete incapacitation, whether due to depressing anxiety, grief or loading beyond healthful resisting, overwork followed by mental agitation, insomnia, dread of insanity, continuous thoughts of self, should call for care and attention. The individual who has pronounced and recognized manifestations of mental depression characterized by delusions, hallucinations or morbid suspicion, whether with suicidal or homicidal impulses, should be recognized not alone for care and treatment, but for the protection of the life of the individual and the lives of the members of his own family, as these are by far the most frequently jeopardized or taken because of the belief of such individual that he is performing a virtuous deed and is acting on imaginary command from the deity to kill. A delusion that the family will come to want if left alone, or the persecutory delusion extends to the family as well as self; and a valuable life is taken or an innocent and promising family exterminated because of a delusion. When such conditions of mentality are known only to the family and family physician, the lay press comment is "temporary insanity." The depressed or melancholy state does not incapacitate and is a cultivated or physiologic condition or habit. However, the melancholy disposition is a natural one for some persons, whereas melancholia is the result of a pathologic condition or deranged brain-cell action which brings changes of individuality, habits, dispositions, affections and injures social relation and capacity; all of which are made patent as well as significant; and if timely steps are taken are not hopeless or even very serious.

Timely action with proper care will always prevent the loss of life either as a result of suicide or homicide. Early and appropriate treatment with suitable environment in a large proportion of cases brings a complete recovery, and at the same time in a large percentage of cases prevents the pronounced as well as the unpleasant and damaging manifestations in combating melancholia, lessens distressing or unpleasant experiences to members of the family, as well as the avoidance of the things that are so sad as to cause unpleasant recollection. You cannot say they are insane; they are only a border-land condition, an approach to a nervous breakdown, a little overwork or an attack of neurasthenia, needing a little rest; it is so much more agreeable to the patient's family and friends than "lunatic," "crazy" or "insane," and so much better for the patient. A larger percentage of recoveries, much less expense, less loss of time, less wrecking of the nervous system, less grief for the family, no court records, no press comments, no humiliating gossips, no appointment of guardian, insanity trials, breaking wills, defense in criminal courts, loss of life, or violations of the common-

wealth code would follow. For the same reasons it is equally as important that paresis and the common types of mental exaltation be recognized in the initial state. Early recognition of paresis with proper care will prevent unpleasant episodes, lawlessness, loss of property and life, as well as lessen the perpetuation of degeneracy.

The recognition of the first manifestations may increase the percentage of recoveries, lessen mortality, lessen costs, shorten time and leave fewer terminal dementes. The paretic in the early stages is profligate, indiscreet, unethical, dangerous to fortune, family and society. Acute mania in its pronounced stages is easily recognized because of its resemblance to the so-called mad man or mad woman. Aside from danger to the patient it is less dangerous than most any other form of insanity. The continued mental and muscular agitation, with insomnia and failure to take food cause many when neglected to die of maniacal exhaustion. The insanity is so pronounced as to cause an arrest and detention, less dangerous because of lack of ability or mind to carry out or even formulate or design. Often the harm done by this class of patients is from not knowing danger and having no conception of danger or how to avoid it. The little child who steps in front of danger or precipitates itself from the window or dangerous location cannot be said to suicide; or if by carelessness is permitted to handle firearms or dangerous weapons, the discharge under such circumstances may result in loss of life to a bystander or in the death of the child; and so with many cases of acute mania or pronounced dementia. Not so with the simple or chronic mania, or the paretic in the active mental states, or before a very pronounced dementia. The paretic, paranoiac, psychic, epileptic, and simple mania patient is, before pronounced mentally enfeebled, a very dangerous type to society in general to be at large. The paretic in the early stage if provoked has no regard for ethics or the rights of others, and is a very inflammable person. This person does so many rational things it is hard to convince the family or community of the danger of such an individual. The psychic and epileptic are dangerous as much so to their best friend as to their worst enemy, or to an individual it never knew.

The crime may be the result of an unconscious act, or without knowledge of having committed a crime; again there may have been knowledge of the act and profound remorse follow, or there may have been knowledge and a feeling as though society had been benefited by the commission of the act. By a process of false reasoning the paranoiac fully justifies itself.

The paranoiac is always dangerous. Except in pronounced cases it is difficult for inexperienced persons to diagnose such cases. The paranoiac ordinarily has an original neurotic history, and is often designated as a crank; he is irascible

and reasons from cause to effect; but his conclusions are not well drawn; his reasoning absolutely illogical, from imaginary causes, having no relation whatever to the supposed effect, and vice versa. The paranoiac is of varying degrees of intellect. Prendergast, the slayer of Carter Harrison, was a paranoiac of low degree of intelligence who had always been ugly in disposition. His aspiration was to be corporation counselor for the city of Chicago, when in fact he had never looked in a law book; he had read the Bible a little and was going to try corporation cases with the belief that his familiarity with the Bible would make him a powerful advocate in corporation law, and because of the failure of the mayor to recognize him as such he justified himself in the belief that it was right to take the life of a man who had failed to appoint him.

Harry Thaw is a paranoiac of somewhat higher degree of intellect, of an original neurotic history as detailed by his family physician whose evidence seemed of little weight before the common jury, that is the people, and probably the jury that tried the case, because the prosecution embarrassed him when he was unable to tell what Romberg's test was.

The laws of this commonwealth are broad enough to reach out after the typical cases of insanity, but its execution is defective. The law provides that if certain officers see, they may file information (this is, in cases not indigent). The statute is equally defective in committing the indigent insane; it is not mandatory in either case. No provision whatever is made for unknown or non-resident insane, and this class is neglected until they do some act of violence or terrorize a community; then sometimes they are placed on a train and shipped to another point, thus endangering the life of patient as well as others; for they commit all manner of crimes, from insults to rapine and murder, all of which could easily have been prevented. Doubtless had proper care been given them at home or in home county or state, the unknown or non-resident would not have invaded this state, or invaded other states from this one. The disposition of counties and states to economize has caused thousands of insane in this state to be removed from institutions, directly or indirectly, by refusing to pay for care and treatment, or removing them to almshouses, soon to be removed therefrom and taken home. The court declares the expenses of the county are too great, too hard on the taxpayers; they are incurable and look to be harmless, so they are liberated; or if not, when they go to the poorhouse the family pride revolts at the thoughts of being looked on as a pauper and the patient is taken home. If of a child-bearing age she soon propagates her kind, leaving the mark of degeneracy on generation to generation. The blood will be crossed with the purest as well as the most degenerate and the worst criminal.

When and where will this stop? Who can say what family may not sometimes be invaded with this blood? We perpetuate degeneracy, such as idiocy, imbecility and insanity, as well as all forms of mental disease and criminals.

The offspring of an individual begotten while insane is almost sure to be idiotic, insane or epileptic. Would it not be well for courts and legislators to count the cost? Is not the increase of insanity sufficient to call a halt?

A small sum would have kept the one individual, while its offspring for generations will require a continuing high rate of compound interest, and must be paid by this and coming generations. It has a lien not alone on taxable property, but a tax of degeneracy on the human family. The influence of degeneracy is being felt over the entire globe. Insanity is a disease; should be recognized as such and so treated. It is a misfortune, not a disgrace. Many forms yield to treatment, especially in border-land and early stages. The laity should be educated through the profession of medicine. Much attention is given to sanitation, pure food laws, white plague, etc. I make bold the assertion that lues and the transmissibility to the offspring of the insane, epileptic and drunkard are doing more to bring about degeneracy, filling the asylums and penitentiaries, and developing criminals of a dangerous type than any other ten known causes. Nothing short of education and legislation will call a halt: man has no moral or legal right to bring into this world a being that it or its offspring is sure to be irresponsible, a delinquent and a criminal. I have spoken freely of hesitation and doubt and lack of decision on the part of the family, and sometimes the family physician, about deciding whether the patient shall be cared for and treated. Is the mind of minor consideration? Is it of so little importance it must be left for one to decide who lacks decision? Or who realizes it is insane, and says so? Is it not a fact that the one who realizes it is insane tells the family so and fears it will suicide? Or has an irresistible impulse to suicide, and if permitted to do so is not such person, to say the least, reprehensible if not guilty of criminal neglect?

Ninety per cent. of the diseases of the mind characterized by profound mental depression are suicidal; and when the opportunity or suggestive weapon is at hand, and when least expected, it takes its life. Not after it becomes chronic, not after it is in a state of dementia, but in the early stages, when the manifestations are not pronounced. When there has been worry from overwork or depression from ill health, when the depression has been pronounced, and often before mental incapacitation, while traveling unattended or traveling in a way if attended could easily destroy self. Mental depression in border-land or early stages, with proper care and treatment,

gives a large percentage of recoveries in a comparatively short time. A good citizen restored to health again becomes a wage earner, a producer, or enters some of the walks of a business or professional life. The importance of early recognition and treatment cannot be too strongly emphasized. The overworked, the neurasthenic, the tired nervous system, the run-down state of health, the one suffering from a pronounced insomnia, the one who tries to seclude, and would destroy self, the morbidly suspicious, should have pleasant and quiet environment, every comfort to encourage mental and physical rest, nurses of intelligence, capable of entertaining, diverting and anticipating. The nurse or physician who can by diplomacy, suggestion or entertaining attract from its delusion is fortunate. The patient believes its delusion as we believe our existence. To dogmatically assert to the patient that it is only a delusion, irritates or insults; by diplomacy or games it entertains or relieves the mental distress, and a good night's sleep is obtained and a good day follows; a continuation of this with treatment soon brings results.

In caring for the insane, physician and nurse should always be honest. Putting medicine in food increases the morbid suspicion of patient, loses confidence in nurse and physician, and the influence for good is lessened or in many instances destroyed. The habit of telling the patient he is being taken to some other place than where he is is not right; if deceived by his best friends, why should he not be suspicious of those he has not known? If deceived in this way, why should he not be suspicious as to the cause of the deception, and cause worry, anxiety or suspicion as to family and property? There should be a frank and honest statement: "You are not well, you worry, you cannot control yourself, are run down in health, have no appetite, your mind dwells on self, you hesitate, and doubt as to what you should do; you have talked of hurting yourself, or taking your life, you fear you will kill your wife or children or will burn yourself and family, and you say you know there are times you know or fear your mind is not right, or that you will become insane; you should have rest and have treatment so you can sleep without hypnotics, have treatment so you will not worry, have some one with you to prevent you from hurting yourself or any one else, made well so you can return to your family and again be well and happy." A statement of this kind will in nine cases out of ten cause the patient to go and many times they say: "I would be glad to go and get well." Insanity should have as much attention as any other kind of disease. The patient that is told an eye or ear trouble may be serious if not properly treated has no hesitation, and the family urges the best skill. The person with gall-stones or appendicitis is advised of the necessity for an operation; the patient is at once

sent to the hospital and no hesitation on the part of the family at going. If a kidney lesion is present and an operable case, all concur in the belief that the operation should not be delayed.

If the mind is affected and the patient realizes at times he is insane, incapacitated for business with which he has been very familiar, is called on to say if he is to take treatment, the family too often say they are afraid he will go mad if sent, or feel like it would be a disgrace; are not afraid of being hurt, we have so much influence, have known patient so long, are sure we can prevent anything of that kind, and just cannot bear the idea of sending patient away, and maybe he will get better soon. They may say: "The only thing, we cannot get the patient to eat, or take the medicine, he acted so strangely, refused the things he has always been so fond of, or is so sleepless, and acts so different since this trouble came on; is running down so fast and mind is getting worse all the time, we cannot bear the idea of having him leave home; he would worry so much; will wait until some of the relatives come, will be home in a few days." They do not realize the dangers of delay, the value of the mind, the danger to self, family and friends.

The patient with an eye or ear trouble, the one with gall-stones or appendicitis, the one with kidney lesion, or with serious conditions of leg or arm, is always persuaded to have the best skill, while a mental trouble is far too often neglected until the case is a hopeless one. An eye, ear, arm, leg, gall-bladder, appendix or kidney, either one or all, can be removed and then the patient get along better than without a mind.

Nothing can take the place of the mind. There is nothing serious about putting a patient with a mental disease in a hospital with comparatively no danger of suicide or homicide. Here is found every appliance for the care, comfort and treatment, with 75 to 90 per cent. of recoveries in border-land cases. Why not treat or arrest in border-land if possible? Why should it be necessary to have a court commitment with permanent records or physicians' affidavits that patient is insane when a plain representation of the case will induce the patient to go voluntarily, and after recovery it is so much nicer to say he was in hospital for a little nervous trouble, or an attack of neurasthenia, than to say was adjudged insane by court, or Drs. H. and B. committed him in compliance with the statute? If patient fails to recover or to improve there will be time enough to adjudge insane.

Why should it be necessary to have this unpleasant record hang over one for life, when it is not necessary? Wherein is one injured who has mental trouble, by being in a modern hospital and receiving treatment for mental illness? Those who are sick mentally need care and treatment, need the constant care of a nurse, and close attention from the physician. Those who

are depressed should be under the care of a vigilant nurse; those who refuse food should be tube fed; the strangulation process of feeding should be condemned in unmeasured terms. The padded cell is about as appropriate for an insane person as it would be for one who had been operated for any serious condition. A padded cell in filth with a dressed or undressed patient. Think of it! Morbid suspicions and cells do not mix well. It calls for a nurse, either with the depressed or exalted. A patient suffering from any acute form of mental disease should not be left alone at any time, day or night. Those who are mentally sick need nurses and constant observation. The technic of surgery may be all that can be asked, but without future care from the nurse results are not obtained. It is important to provide nurse, tempting articles of diet, to be administered by one of tact, to put sunshine in the disposition of patient by anticipation or entertaining. The major part of the insane know and appreciate good treatment.

Too much effort cannot be put forth to arrest or cure in border-land. The percentage of recoveries is greatly lessened or may be said to be lessened, in direct proportion to the duration of the disease. The fear the patient will not like to be sent to a hospital or will turn against the family or family physician is the chief cause of delay or neglect. These outweigh the probable restoration and welfare of patient, as well as the safety of family and society in the community in which he lives. There is not one patient in 500 that will feel unkindly to the hospital or those who cared for him (if properly cared for and treated); on the contrary, he will appreciate it, and be grateful to the physician that was instrumental in sending him for treatment, and the same feeling will prevail toward the family. If mistreated or neglected they are not and should not be satisfied. The ones that are very insane, and are not restored or improved and who have delusions, are the ones who object to voluntary commitment. Those who are not insane and committed to institutions with which I have been connected usually have committed some crime and are malingerers of two classes: one goes to institution and hopes to escape, thereby gaining liberty; the other class has no desire to escape from institution, or if so, to escape and go where he knows he will be found and returned. These enter the plea of insanity for the purpose of being acquitted, and try to prove themselves insane. Such cases should be in charge of the most trustworthy and vigilant nurses and under close observation, to prevent escape, and ascertain if they are insane. Any person who has motive in feigning insanity should have close observation from physician and from nurse with a view to that possibility.

Likewise when there is motive for sending patient to institution the same close observation

should be maintained. Out of seven or eight thousand insane under my observation, covering a period of twenty-two years, I can recall but two or three cases that came under my observation that were not insane; that is, sent by those supposed to be friends and against the patient's wishes. While in state institution I think we had on an average three or four a year of those who had committed crime and were malingerers, crimes of varying degrees from larceny to incest and murder, many before and after trial (where acquitted on the grounds of insanity); and like the damage suit the verdict is the restoring balm for the malingerer. I have known some malingerers to have proved insanity at time of committing crime and to have been restored at time of trial. All incurables who have property interest, or where business is liable to suffer or where patient worries greatly about unlawful detention should be adjudged insane and if necessary have a guardian.

In border-land condition there is no necessity to say to the public, the patient is or was insane; he should be protected in this respect. Many in border-land are treated and restored before they become insane. They should be taken to hospital or treated before the mental trouble becomes pronounced. These cases bring almost 100 per cent. of recoveries and with proper advice as to future care, nervousness seldom returns. In a condition so much desired, why wait for a complete breakdown?

The object in presenting this paper is to encourage early and better care for the insane, or those who are in danger of becoming so. Preventive medicine is as applicable to mental diseases as any branch of medicine or surgery. If the approach is due to insomnia, bring about natural sleep without the use of hypnotics. I have never seen a hypnotic that will produce natural sleep, or have the same effect on the same person in six consecutive doses. I have never known a hypnotic that would for any length of time continue to act as such without increasing the dose. I have never known a person who had used them regularly and for any length of time, that was not made nervous by their use, that did not lessen nerve inhibition, and if continued very long wreck and incapacitate. Motor depressants and hypnotics are the chief etiologic factors in many cases of insanity, when a little rest, diversion and proper building up would have made them well without any other treatment.

There are but few curable nervous diseases as bad as drug habit, and none so apt to recur if continued long enough; no other more certain to result in insanity.

If you are fatigued bodily you need rest; if fatigued mentally why not rest? If carrying too great a load, why not throw off? Men, women, horses, wagons, cars, bridges, elevators and piers can be crushed with an overload. Why give

motor depressants or hypnotics for an insomnia due to such causes? If insomnia is due to worry, why use hypnotics since they increase the worrying; and hypnotics are depressants. Worry was never known to produce sleep or cure any one of any disease, and was never benefited by the continued use of hypnotics. Notwithstanding these facts the world is full of men and great or giant intellects that are not sleeping without motor depressants or hypnotics, and not half as much as is necessary for the continuation of business, to say nothing of the continuation of physical and mental health. This class continues for a time, suddenly to succumb when least expected.

The individual who is insane or in danger of being so is entitled to the best care and treatment his financial condition will afford and if he is without means the commonwealth should provide same. This can be done by enlarging or building institution or removing from the state institutions those whose finances are such that they can go to private hospitals. The statute is mandatory in this, though it has never been enforced in this state. The percentage of recoveries is greatly lessened, mortality increased, accidents more frequent, and dissatisfaction more pronounced in overcrowded institutions.

Managers are handicapped and helpless as to obtaining relief unless they order removal or refuse to admit those who are able to go to private institutions. The state institutions are crowded, 331/3 per cent. beyond a healthful capacity, making classification of patients unsatisfactory to patients and management. Such conditions necessarily create friction and discontent and lead to paroxysms of disturbance among the patients and are in many instances the cause of the things we are trying to prevent. Anything that disturbs or irritates the patient this morning usually makes it unhappy or causes it to worry throughout the day, which may be the cause of disturbance, sometimes cause of failure to restore. Crowded conditions make it impossible to individualize. No scientific or satisfactory treatment of the mind can be given without individualizing. Should not the one who is mentally sick have as much care and nursing as the operated patient? Some institutions are so crowded and the number of patients so great and physicians so few they do well to know all of the patients.

In concluding this paper let us insist on an up-to-date care and treatment, in the early stages of insanity, by the family physician, properly nursed under constant observation and control so as to prevent suicide or homicide. Or treatment in a private hospital or sanatorium or a state institution, thereby increasing the percentage of recoveries, lessen the death-rate, lessen crime and anxiety, and let us insist on every comfort and care for the incurable.

THE EVOLUTION OF AMERICAN SURGERY

Oration on Surgery *

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Prior to the eighteenth century surgery had been an art of low repute. The statutes of the city of Bordeaux for 1457 prescribed that for admission to the trade of barbery and surgery the candidate must appear before the examiners who will assure themselves as to his vision, value in shaving ability to sharpen lancets and knowledge of veins from which blood may be drawn. In the Prussian Army it was a part of the duty of the regimental surgeon to shave the officers. The Council of Tours denounced surgery as being unworthy of a priest and beneath the dignity of a scholar. Its practitioners in the sixteenth century consisted of barbers, farriers, swine-slayers, cobblers and tinkers.

THE FIRST SURGEON IN NORTH AMERICA

Among the Britishers who came to settle Virginia at Jamestown in 1607 was Dr. Thomas Warren, surgeon of the London Company. Between this date and the American Revolutionary period, comparatively little is known of American surgery, though to Colden of New York, Shippen of Pennsylvania, Boylston of Massachusetts and Moultrie of South Carolina is due much of the credit of having made the beginning of our medical literature and medical institutions.

Prior to the Revolutionary War only one medical book, three reprints and about twenty pamphlets had been issued by American authors. At that time there were in the country, all told, about 250 medical men, with few hospitals and but two small medical schools. There are to-day in the country 142,000 physicians, 5,400 hospitals and sanatoriums; and more than 100 medical libraries. According to a report of the Committee on Medical Education of the American Medical Association, August, 1911, there were 148 medical schools with 20,000 students in attendance last year.

During the Revolution American surgery occupied an unenviable position: the service rendered the troops was crude. Among the men whose names stand out prominently during this period may be mentioned Morgan and Shippen, both of whom were chiefs in the medical department of the Army.

You are all familiar with the difficulties with which Washington struggled for years in his commissary and equipment departments, but these were trifling as compared with the trials of the medical department. During the entire war supplies were poor, instruments were few, opium and quinin were scarcely to be found and

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ether was unknown. Just before the battle of Long Island Dr. Warren, surgeon of the General Hospital of that place, received the often quoted "razor letter" from the Director General, John Morgan: "Sir: I have sent to the surgeons, desiring the youngest off duty to go to your assistance and take four mates with him to carry over 500 additional bandages and twelve fracture boxes. I fear they have no scalpels as whatever I have committed to the hospital has always been lost. I send you two, in which case if you want more, use a razor for an incision knife. Let me know from time to time at Long Island. Signed, J. Morgan."

Benjamin Church of Boston was the first Surgeon-General of the American Army. His duties were "to furnish medicines, bedding and all other necessities, to pay for same, superintend the whole and make his report to and receive orders from the Commander-in-Chief." His pay was \$4 per day.

About this time the school and hospital of Philadelphia formed the most important medical institution in the country. The foundation of the Massachusetts Medical Society and the establishment of the Medical Department of Harvard College were the two prominent events following the close of the Revolution. The Massachusetts Medical Society was not the first colonial medical association, but with the exception of the New Jersey Society, founded in 1766, it is the oldest of those now in existence. Harvard had no medical department until it was half way through the second century of its existence. Probably this was due to the fact that for many years it was little more than a theological seminary.

Surgery made little advance between the time of Hippocrates, who was born 460 years B. C., and the year 1750 A. D., when it was divorced from the traditions of the past and given a place among the sciences.

Medicine, on the other hand, enjoyed a well-defined and honorable status, and received abundant and liberal support. Thus, it becomes evident that the claim of surgery to honorable and dignified recognition has existed less than two centuries.

Prior to the discovery of the circulation of the blood by Harvey, in 1628, there was a fearful dread of hemorrhage from an unknown source, which prevented any operations except those of dire necessity.

The history of surgery during the past century forms a most interesting chapter. A little more than a hundred years ago, in the name of surgery, scenes were enacted which eclipsed in horror the cruelties of the Spanish Inquisition. Patients were bound to the table and were operated on while in full possession of their senses. They were cut with red-hot knives and their wounds were dipped in scalding tar to control hemorrhage. *Tempora mutantur*. The patient

now goes to sleep without a struggle, and when he awakes the operation is finished, the convalescence is fever-free and painless; the mortality is reduced to almost nothing and the operation itself is robbed of its horrors. The evolution which surgery has made to effect such a wonderful change is one of the most fascinating studies in the world's history.

FATHER OF AMERICAN SURGERY

A private pupil of John Hunter, Philip Syng Physick, who afterward became known as the father of American surgery, began practice in Philadelphia in 1792. Two years later he was elected surgeon to the Pennsylvania Hospital. Physick was professor of surgery in the Medical School of the University of Pennsylvania for thirteen years. Aside from his ability as a didactic teacher he was widely famous as a brilliant operator and clinician. He was the first to perform venesection to overcome muscular contraction. He was especially interested in the treatment of fractures and his modification of Desault's splint for fractured thigh is still in common use. His appliance for correcting the outer displacements of the foot in Pott's fracture seems to have anticipated that of Dupuytren.

OVARIOTOMY

Ephraim McDowell of Danville, Ky., a typical American, began practice in 1795 and fourteen years thereafter had for a patient a Mrs. Crawford, who came on horseback from her home, 60 miles away, insisting on relief from an abdominal tumor. In all the history of surgery there was no precedent to warrant an attempt at interference. McDowell explained that the operation was an experiment which had never before been tried and that the danger was great, but she decided to have the operation performed. Guided by correct pathology and possessed of trained operative skill, he performed his part: the tumor was removed; the patient was restored to health, ovariectomy was given to the world, and the name of McDowell was immortalized.

LIGATURE OF THE INNOMINATE ARTERY

Among the early great teachers none is better known to us than Valentine Mott. He was a prominent New York surgeon less than a century ago. In 1817 he was appointed attending surgeon to the New York Hospital, and at that institution he performed the operation which caused his name to be known throughout the civilized world—the ligature of the innominate artery. A few years earlier Cooper had tied the abdominal aorta, but even that had caused scarcely more comment. Dr. Mott did his work prior to the day of anesthesia, in a region of the body containing many structures of great importance. Mott became famous more because of this than any

other one act, and almost half a century elapsed before the operation was successfully performed by any other surgeon. The operation was attended by many physicians, all of whom testified enthusiastically to the surgeon's ability, technique and skill.

ONE OF THE FOUNDERS AND EARLY PRESIDENTS OF THE AMERICAN MEDICAL ASSOCIATION

Among the men of that generation few led more steady, laborious and useful lives than John Collins Warren, who was Mott's senior by seven years, and was the eldest son of John Warren, who served in the Revolution and founded the Harvard Medical School. Immediately after his arrival in Boston he began practice. In 1806 he was made adjunct to his father in the chair of anatomy and surgery at Harvard, and succeeded to the full professorship nine years later. Warren's name will always be associated with the foundation of the Massachusetts General Hospital and the introduction of ether anesthesia. These two events were separated by an interval of twenty-five years and there were other men connected with both, some more intimately than was Warren. In 1811 he assisted in founding the *New England Journal of Medicine and Surgery*, which in 1828 was united with another under the title *Boston Medical and Surgical Journal*. Warren was prominent in the establishment of the American Medical Association, and was one of its early presidents.

ANESTHESIA

In October, 1846, in London, Sir Benjamin Brodie said: "All physicians and surgeons have been looking in vain, from the days of Hippocrates down to the present time, for the means of allaying or preventing bodily pain." Within twenty-four hours of the utterance of these words, in the operating-theater of the Massachusetts General Hospital, an American dentist, W. T. G. Morton, demonstrated that the inhalation of ether would induce a state of insensibility; that under its influence, prolonged surgical operations could be done without pain or consciousness on the part of the patient. This proved to be the most important evolutionary force hitherto discovered.

Dr. Crawford W. Long of Georgia, on the 30th day of March, 1842, removed a tumor from the neck of a patient who had inhaled sulphuric ether and who was insensible, though an account of the discovery was not published until 1849. This was the first case of the employment of anesthesia recorded in the practice of surgery.

Dr. Horace Wells, a dentist of Connecticut, on the 11th of December, 1844, was the second person to use an anesthetic. He had one of his own teeth extracted while fully under the effects of

laughing gas. After that time he daily extracted teeth without pain.

The term *anesthesia* was suggested by Dr. Oliver Wendell Holmes, as is shown by the following extract from his letter of Nov. 1, 1846: "Everybody wants to have a hand in the great discovery. All I will do is to give you a hint or two as to names, or the name to be applied to the state produced and to the agent. The state, I think, should be called *anesthesia*. The adjective will be *anesthetic*."

In less than six months after Morton's demonstration, anesthesia was made use of in all large cities of this country and of Europe and was universally acknowledged to be the greatest discovery in the annals of science. With pride American surgeons may read on the marble shaft at Mount Auburn Cemetery this inscription: "W. T. G. Morton, Inventor and Discoverer of Anesthetic Inhalation: Before Whom in All Time Surgery Was Agony; By Whom Pain in Surgery Was Averted and Since Whom Science Has Control of Pain."

HYSTERECTOMY

Dr. Walter Burnham of Lowell, Mass., a professor of surgery in the Worcester (Mass.) Medical Institution, a man of rare ability, memorable for his presence of mind, his deftness and sagacity, in 1851 operated on a patient at Meriden, removing a tumor weighing 54 pounds. The patient died and Dr. Burnham was severely criticized. During his career he was twice threatened with prosecution for manslaughter, but the recovery of the patients prevented the malicious purpose of his enemies. A teacher of surgery in one of the colleges of the city of New York, in 1875, declared the procedure unjustifiable. Since that time, however, the operation has attained extraordinary favor throughout the world.

Dr. Burnham was the first surgeon who ventured on excision of the uterus. It was the occasion of his fourth operation for ovarian disease, and took place on the 26th of June, 1854. He had found, after opening the abdomen of the patient, that instead of an enlarged ovary there was a fibroid tumor involving the uterus itself. Dr. Burnham removed the entire organ with its appendages.

CHOLECYSTOTOMY

Dr. John S. Bobbs of Indianapolis, professor of surgery and dean of the Medical College of Indiana, was a man of unusual ability. The crowning glory of Dr. Bobbs' professional life is his well-earned reputation as the founder of cholecystotomy, inasmuch as he was the first surgeon to open the gall-bladder, from which he removed fifty gall-stones. The operation was performed June 16, 1867, the patient making a good recovery. The event marks an epoch in

abdominal work, placing American surgery on a pedestal that commands the admiration of the civilized world.

THE MOST IMPORTANT ERA

Between 1840 and 1875 were witnessed three important additions to surgical possibilities. These were: (1) the opening of the peritoneal cavity to operative interference; (2) the discovery of anesthesia; and (3) the demonstration of the relation of microorganisms to disturbance in the healing of wounds. Two of these are universally acknowledged to have been evolved in America. The third came from England. It was from the studies of Pasteur that Lister formulated the general laws of antisepsis and the rules for the application in practical surgery. American surgeons visited Edinburgh, witnessed the healing of wounds without suppuration, and introduced the new method at home. In the application of antisepsis to practice, American surgeons made use of every conceivable device, the object of which was to secure more perfect asepsis in patient, surgeon, instruments and dressings. The results have been that operations which, half a century ago, were not considered because of their danger, are to-day universally performed with absolute success and in no small number of capital operations has the death-rate been entirely eliminated.

OPERATIONS FOR VESICOVAGINAL FISTULA

Dr. J. Marion Sims moved to New York City in 1853 and established the Woman's Hospital. His enthusiasm, pertinacity, skill and ingenuity in evolving his operation for the cure of vesicovaginal fistula, discovering a method of exploring the interior of the vagina for inspection, and of silver wire as a material for sutures, reflects the highest credit on the medical profession of this country. His frequent visits to European capitals, where he performed his special operations and received honors and decorations from the French, Spanish, Italian and Belgian governments, is another evidence of the value of American surgery to the world.

Among other operations by American surgeons may be mentioned:

Excision of the coccyx, first performed by Valentine Mott of New York.

Excision of the rib by the trephine for drainage in empyema was first done by Stone of Cincinnati in 1862.

Excision of a part of one or more ribs for the same purpose originally done by Walter of Pittsburgh in 1867.

Operation for thoracoplasty, first suggested by Warren Stone of New Orleans.

Excision of the hip-joint by Sayre of New York in 1854.

Division of great trochanter and neck of the thigh by Barton of New York in 1826.

Ligation of the primitive carotid by Cogswell of Connecticut in 1803.

Aneurysm of the subclavian artery in its third portion first cured by ligation by J. Wright Post of New York in 1817.

The primitive iliac was first tied by William Gibson.

The innominate artery was successfully ligated by Smyth of New Orleans in 1864.

The two internal iliacs were for the first time simultaneously ligated by Dennis of New York in 1886.

Ligation of the external iliac by Dorsey of Philadelphia in 1811.

Excision of second branch of fifth cranial nerve beyond Meckel's ganglion, for the relief of tic douloureux, was first performed by Carnochan of New York in 1856.

The removal of the inferior branch of the fifth nerve was first performed by Samuel D. Gross of Louisville, Ky., in 1853.

The overlapping operation for umbilical hernia was first performed by Mayo of Minnesota in 1895.

Nephrectomy for the relief of malignant disease of the kidney was first performed by Wolcott of Milwaukee in 1860.

Plastic operation for a new urethra was first successfully done by Alexander of New York in 1892.

Litholapaxy was introduced by Bigelow of Boston in 1878. It forms one of the most prominent advances in American surgery.

Excision of the superior maxillary bone was first done by Rogers of New York in 1824.

Partial excision of the inferior maxillary bone was first performed by Deadrich of Tennessee in 1810.

Complete excision of inferior maxilla was first performed by Carnochan of New York in 1853.

Excision of os hyoides was originally done by Warren of Boston in 1853.

Operation for ankylosis of the knee was devised by Barton of New York in 1853.

Excision of the entire clavicle was first done by McCreary of Kentucky.

Excision of the entire scapula, three-fourths of the clavicle, and arm, was done for the first time by Dixi Crosby of New Hampshire in 1836.

Excision of two-thirds of the ulna was successfully done by Butt of Virginia in 1825.

Staphylorrhaphy, first performed by John C. Warren of Boston in 1820.

Paracentesis pericardii, first successfully performed by John C. Warren of Boston.

Esophagotomy for the relief of organic stricture of the esophagus, first performed by John Watson of New York in 1844.

Perineal cystotomy for the relief of chronic cystitis resulting from hypertrophy of the prostate gland, performed for the first time by Willard Parker in 1846.

Operation for extroversion of the bladder was first performed by Carroll of New York in 1857.

In the management of ununited fractures America stands preeminent.

The use of a seton between the ends of an ununited fracture of the humerus was introduced by Physick of Philadelphia in 1802.

The use of the metallic suture originated with J. Kearney Rodgers of New York in 1827.

Operation for drilling the fragments was first carried out successfully by Brainard of Chicago in 1825.

The iron screw, to accomplish the same purpose, was used by Pancoast of Philadelphia in 1857.

Suspension in the treatment of fractures was adopted by Nathan Smith of Boston in 1827.

Use of the sand bag in treatment of fractures by Hunt of Philadelphia in 1862.

The plaster-of-Paris jacket for treatment of Pott's disease was invented by Louis A. Sayre of New York.

Reduction of dislocation on dorsum of ilium by manipulation was first suggested by Nathan Smith of Boston.

The method of treating fracture of the femur by extension, weight and pulley, the weight exerting traction on the leg by properly applied strips of adhesive plaster, dates back to 1851, and to Gurdon Buck of New York the credit is due.

Laparotomy as a curative measure in tubercular peritonitis was introduced by Dr. Van de Warker of Syracuse, N. Y., and celiotomy for the relief of perforation of the intestine during the progress of typhoid fever, by Dr. Weller Van Hook of Chicago.

The rational treatment of penetrating gunshot wounds of the abdomen, by systematic exploration of the cavity, and careful suturing of perforated intestines, will always be associated with the names of Bull and Parks.

The possibilities of intestinal anastomosis testify to the acumen and skill of Senn, Abbey and many other American surgeons.

In the treatment of inflammatory affections of the vermiform appendix, which has been a distinct contribution of American surgery, the names of Sands, McBurney, Wier, Bull, Stimson and Fowler stand out prominently.

The removal of the appendix as a necessary part of the operation was first done by Dr. T. G. Morton of Philadelphia in 1887. The mortality, which was then about 15 per cent., has now been reduced to a fraction of 1 per cent.

Surgery as a science made little impression on the world until about a century ago; but since that time it has aroused admiration in every part of the world. The progress has been greatest during the last seventy-five years, and is due principally to the discovery of anesthesia and to asepsis, though the dissemination of medical literature, the formation of medical libraries, the

organization of modern hospitals, the equipment of scientific laboratories and the foundation of medical schools have been factors of great importance.

There is no surgical possibility that has been achieved by any worker anywhere that has not been paralleled by the American surgeon.

America eclipses the world in the magnificence of its medical institutions, and to Andrew Carnegie is due the credit of building the first purely scientific laboratory in this country. The Laboratory of Hygiene in Philadelphia; the Caroline Brewer Croft Fund for the study of cancer, at Harvard University; and our own Barnard Skin and Cancer Hospital at St. Louis are worthy of mention. While the magnificent gift of the Rockefeller Institute for original research is a guarantee of the continued advancement of scientific medicine in America.

BOOK REVIEWS

FATIGUE AND EFFICIENCY. A study in industry. By Josephine Goldmark. Containing also the substance of four briefs in defense of women's labor laws by L. D. Brandeis, and Josephine Goldmark. Svo. pp. 890. Cloth. Charities Publication Committee, Russell Sage Foundation, New York, 1912. Postpaid, \$3.50.

This is an eminently practical volume devoted to a consideration of fatigue with a view to determining its sociological significance, for the purpose of formulating a basis from which to work out a remedy for the industrial abuses that obtain to-day. Physical overstrain is studied specifically in all its economic aspects, and practically every point at which it touches and affects the industrial life of modern times is considered.

The second part of the volume contains the briefs which were prepared by Miss Goldmark and submitted by Mr. Brandeis in defense of the ten-hour laws for women before two state supreme courts, and the U. S. Supreme Court in the famous cause of *Miller vs. Oregon*.

Reports from all countries of the civilized world are cited in the work and reveal indefatigable research and a vast acquaintance with the economic archives of the modern world.

Miss Goldmark possesses qualifications which render her particularly competent to undertake an epoch marking labor like this, and the high terms in which the leading economists of the country speak of her achievement testify to her success in its acquittance.

PROGRESSIVE MEDICINE. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by H. A. Hare, M.D., and L. F. Appleman, M.D. Vol. xiv, No. 2, June, 1912, pp. 391. New York and Philadelphia, Lea & Febiger. \$6.00 per annum.

This is an unusually attractive issue of *Progressive Medicine*. It is devoted to the following subjects: Hernia; Surgery of the Abdomen, Exclusive of Hernia; Gynecology; Diseases of the Blood; Diathetic and Metabolic Diseases; Diseases of the Spleen, Thyroid Gland, Nutrition and the Lymphatic System; Ophthalmology.

THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

JULY, 1912

EDITORIALS

PROSTITUTING THE PROFESSION

A St. Louis physician supposedly in good standing recently gave voice to his regret that the ethics of the medical profession forbids the man of medicine to advertise. What makes the circumstance doubly unfortunate is that this expression was given before a class of graduating students in one of the medical schools of that city.

The desire to see the profession become a trade is inconsistent with sincere devotion to the science and the conversion of the practice to a mere opportunity for the acquisition of dollars and cents conflicts with the real purposes of medicine, both from the standpoint of the profession itself, and from the standpoint of the patient.

It is a short step from the medical advertiser to the grafter and the quack; and once the bars are let down medicine will be prostituted to the purposes of the sordid ends of the rapacious and the mercenary. The strictness with which legitimate medicine has observed the non-advertising dictum has been a glory for a thousand years; the true physician has ever regarded the afflictions of his patient as a sacred trust. No scale of prices can measure the sufferings of mankind. The spirit that wantonly parades these distresses before the world to exploit the healing methods of an individual, is incompatible with a real desire to alleviate the ills the flesh is heir to.

What an inspiration to bestow on a class of young physicians—the regret that they cannot trade their privileges to the highest bidder! What a standard for their emulation—the regret that they are not free to refuse the mite of the widow for the muckle of the rich! The golden rule becomes the golden rod, to drive the sick poor back to their hovels; to scourge the halt, the lame and the blind out of the way when they fail to measure up to the inexorable and unbending rod of gold. This is the inevitable finale of the time that sees the advertiser legitimized by the ethical and organized profession. Commercialism has at times debauched nearly every sphere of human endeavor, leaving almost no field unsmirched; but the taint so far has left

our profession untouched to a degree that has redounded to the honor and maintained the high ideals of the calling.

If the outrageous spectacle of a physician preaching the doctrine of dollars and cents to a graduating class of medical students emphasizes one thing more than another it is the necessity of instituting a chair of medical ethics in medical schools. Hasten the day when the morals of medicine will cease to be regarded as superfluous in the curriculum, but will be as carefully guarded and as faithfully taught as are the therapeutic doctrines.

The evils of fee-splitting, the shame of indiscriminate drugging and the crime of unnecessary operating, where they are found within the pale, occur as a logical sequence of the disregard of the importance of teaching the ethical tenets of medical practice in our schools. When this lamentable neglect has been remedied, then we may look for an abatement of the practices now and again found in the ranks: practices unworthy of a noble line; unworthy of the sons of Aesculapius and Hippocrates.

THE PARTY PLATFORMS AND PUBLIC HEALTH

The medical profession is not committed to any political party, and it is not within its province to regard officially the activities of political parties or give itself to the construction, approbation or disapproval of political doctrine save in so far as the expressions of the respective parties have to do with the health of the people.

The health of the people is the supreme law, and when an organization representing prospective government administration gives expression to policy or purpose regarding the emphasis it proposes to place on public health, the surveyance by organized medicine of the purpose so expressed is not only proper but obligatory.

The establishment of a national board of health having advisory supervision of sanitary matters in the country has been the hope of the profession for a long time. The necessity for such a governmental health service has become more and more apparent within recent years, and has assumed the proportions of a public question. The attitude of the respective political parties, then, as to the disposal they intend to make of this public question vitally concerns the profession of medicine; and a comparison of party declarations in this particular devolves on every sincere physician.

A comparison of the recently adopted platforms of the Republican and Democratic parties needs little comment.

The platform of the Republican party in a paragraph referring to child labor and workmen's compensation laws, briefly, and we may say incidentally, shows its appreciation of the importance of establishing a national board of health and gives the party promise to undertake specific and definite action for the promotion of public health and the saving of human life, in the following vague and non-committal sentence: "The Republican party will strive, not only in the nation, but in the several states, to enact the legislation necessary to safeguard the public health."

This statement may mean everything; therefore it is significant of nothing.

The only reference made in the platform to the enforcement of the laws pertaining to pure food and drugs occurs in another paragraph devoted to a review of the achievements of the administration, where the Republican party is credited with "vigorous administration of the laws relating to pure food and drugs." This is news indeed and interesting for that reason. Who can forget Wiley? And what shall we say of his resignation brought about by unfair tactics pursued with the knowledge of the heads of the administration; tactics which could admit of but one object—the resignation of Wiley and the cessation of the efforts he was making to enforce and strengthen pure food and pure drug provision. What shall we say about that?

We very much regret that the Republican party has so signally evaded the question of public health, and has so unfortunately neglected to take a definite stand on this subject which has become a principle.

With relief and gratification we turn to the platform of the Democratic party, which declares in unmistakable language on the subject of pure food laws and public health in the following paragraph: "We reaffirm our previous declarations advocating the union and strengthening of the various governmental agencies relating to pure food, quarantine, vital statistics and human health. Thus united and administered without partiality to or discrimination against any school of medicine or system of healing, they would constitute a single health service, not subordinated to any commercial or financial interests, but devoted exclusively to the conservation of human life and efficiency. Moreover, this health service should cooperate with the health agencies of our various states and cities without interference with their prerogatives or with the freedom of individuals to employ such medical or hygienic aid as they see fit."

Between the two platform declarations on the question of national conservation of human health and efficiency there can be no choice for the physician who places devotion to his profession above his political affiliations.

SOCIETY PROCEEDINGS

Missouri State Medical Association

Fifty-Fifth Annual Meeting, held at Sedalia,
May 21-23, 1912

MINUTES OF THE HOUSE OF DELEGATES

FIRST DAY—TUESDAY, MAY 21

COURT-HOUSE

The House of Delegates was called to order by the president, Dr. Robert H. Goodier, at 9 a. m. The roll call showed the following delegates present:

COUNTY	DELEGATE	ADDRESS
Audrain	R. W. Berry, Mexico.	
Barton	A. B. Stone, Lamar.	
Bates	Sherman Miller, Urich.	
Benton	H. G. Savage, Warsaw.	
Boone	Guy L. Noyes, Columbia.	
Buchanan-Andrew	C. W. Fassett, St. Joseph.	
Buchanan-Andrew	W. T. Elam, St. Joseph.	
Caldwell	Tinsley Brown, Hamilton.	
Cass	F. B. Ellis, Garden City.	
Chariton	J. S. Wallace, Brunswick.	
Clinton	Melvin L. Peters, Cameron.	
Cole	H. G. Shobe, Jefferson City.	
Cooper	J. S. Parrish, Pleasant Green.	
Daviess	W. L. Brosius, Gallatin.	
Dent	Jas. C. Welch, Salem.	
Gase-Maries-Osage	Jno. D. Seba, Bland.	
Gentry	Jas. Crockett, Stanberry.	
Greene	T. O. Klingner, Springfield.	
Grundy	J. B. Wright, Trenton.	
Henry	R. D. Haire, Clinton.	
Howard	V. Q. Bonham, Fayette.	
Jackson	Dora G. Wilson, Kansas City.	
Jackson	E. F. Robinson, Kansas City.	
Jackson	J. D. Griffith, Kansas City.	
Jackson	E. H. Thrailkill, Kansas City.	
Jackson	F. E. Murphy, Kansas City.	
Jackson	Wm. Frick, Kansas City.	
Jasper	A. B. Freeman, Joplin.	
Jefferson	R. E. Donnell, DeSoto.	
Johnson	L. F. Murray, Holden.	
Knox	H. J. Jurgens, Edina.	
Laclede	J. A. McComb, Lebanon.	
Linn	Robt. Haley, Brookfield.	
Lawrence-Stone	Jas. A. Harris, Mt. Vernon.	
Livingston	Reuben Barney, Chillicothe.	
Macon	Wm. A. Welch, Callao.	
Madison	W. H. Barron, Mine La Motte.	
Marion	J. C. Chilton, Hannibal.	
Miller	Wm. S. Allee, Olean.	
Mississippi	H. L. Reid, Charleston.	
Moniteau	J. P. Burke, California.	
New Madrid	L. T. A. Mallette, Parma.	
Nodaway	A. T. Fisher, Maryville.	
Pettis	E. A. Albers, Sedalia.	
Platte	H. M. Clark, Platte City.	
Ralls	T. J. Downing, New London.	
Randolph	C. B. Clapp, Moberly.	
Saline	J. H. Owens, Sweet Springs.	
St. Louis	H. G. Wyer, Kirkwood.	
St. Louis City	C. M. Nicholson, St. Louis.	
St. Louis City	Joseph Grindon, St. Louis.	
St. Louis City	Hudson Talbott, St. Louis.	
St. Louis City	Thos. A. Hopkins, St. Louis.	
St. Louis City	W. G. Moore, St. Louis.	
St. Louis City	R. E. Schleuter, St. Louis.	
St. Louis City	L. H. Hempelmann, St. Louis.	

COUNTY	DELEGATE	ADDRESS
St. Louis City	T. R. Ayars, St. Louis.	
St. Louis City	P. H. Swahlen, St. Louis.	
St. Louis City	H. Unterberg, St. Louis.	
St. Louis City	P. G. Hurford, St. Louis.	
St. Louis City	A. H. Hamel, St. Louis.	
St. Louis City	C. H. Neilson, St. Louis.	
St. Louis City	M. A. Bliss, St. Louis.	
Shelby	R. S. Battersby, Shelby.	
Vernon	C. B. Davis, Walker.	
Webster	M. Highfill, Marshfield.	

On motion the minutes of the 1912 session as published in *THE JOURNAL* were adopted and their reading dispensed with.

The president introduced Hon. W. G. Lynch of Sedalia, who welcomed the Association to the city. Mr. Lynch said:

Gentlemen of the Missouri State Medical Association The city of Sedalia is not unmindful of the honor conferred on it by these visiting physicians. We have entertained many conventions in days gone by, and numerous distinguished guests have come within the gates of our city, but I dare say that scarcely ever before in the history of Sedalia did we have the honor and pleasure of entertaining such a distinguished body as is assembled here. You are members of an intelligent and honorable profession, and the esteem in which you are held by your fellowmen is correctly measured by the good you have done for humanity. Whether we view you from the brave work and culture you represent, or the great power and influence you wield, or the highly important purpose for which you meet, you are alike entitled to a hearty and cordial welcome. At the request of the mayor of our city, and in behalf of the municipal corporation of Sedalia, I extend to you a hearty and cordial welcome. We trust that your meeting will be pleasant and profitable, full of interest and of benefit to yourselves and mankind generally. We want you to be so well treated while here that you will be inclined to stay with us always, but should, perchance, business call you back home, we trust you will have so enjoyed yourselves while here that you will carry back pleasant recollections with you and in your hearts have a warm spot for the city of Sedalia. I thank you, and again give you the welcome of our city.

In behalf of the Association Dr. William G. Moore of St. Louis responded to the welcoming address, and said:

It is a sincere pleasure to speak anywhere that I can for the body which I at this moment represent. There is not, in my judgment, within the confines of this state, a single body which so much deserves the respect, patronage and honor of the people as the Missouri State Medical Association. The reasons are too numerous even to attempt to mention, but I want to call attention to the fact generally, that it is the only body of men that is absolutely and entirely philanthropic in its purpose. It is the only body which limits

its own sources of revenue that others may escape the penalty of sickness, death and human distress. It is the only body which never has presented a graft bill before the legislature of this state in its whole history of over half a century. Twenty-five hundred, and several more, represent this body. It should be doubly large and it should be the interest of everyone of us present to do what he can to make this body as influential as possible in doing the work which no other association in the state has ever attempted to do. In the city of St. Louis the deadly disease, diphtheria, has lost its terror; typhoid fever, which was little less terrible, is almost a thing of the past. In fact, you might say, all the epidemic diseases we have had are under the control of this same medical profession working day and night for the welfare of the community.

There is no organization which has had more opposition than the medical profession. It cannot be denied that opposition is met on every hand; and that opposition should make us more and more determined to overcome it. I see before me men who have worked for half a century in this profession, honestly, earnestly, for the good of humanity, and for the greatest number of these years in Missouri.

I wish to say in reply to the gentleman who has so hospitably spoken, that I believe this city has never entertained a more deserving body than the one we represent this morning.

Dr. W. J. Ferguson, vice-president, was called to the chair while the president read his message, as follows:

To the House of Delegates, Missouri State Medical Association:

It is the duty of the president of the State Medical Association to make certain recommendations to the House of Delegates that may seem to him most efficient in promoting the best interest of the Association.

Permit me to say in the beginning, however, that we have a well-organized profession, one that reflects great credit on our grand old commonwealth, and as a bulwark of security to the health and well-being of the citizen public is worthy of the highest confidence. Within the last few years we have made very material progress and advanced our professional standards; we have a high order of professionalism, and by reason of helpful legislation we are enabled better to guard the portals of our ministry and insure a greater average of individual proficiency on the part of those who engage in the practice of medicine in the future.

And yet we are only on vantage ground of opportunity and must not cease in our labors and demands for higher excellence. To be satisfied with present conditions is to be unworthy of the goals already won and the confidence we have inspired. But the way brightens and let us put

aside the weight that so easily besets us and push on to higher planes and nobler achievements, knowing that victory will crown our efforts if united in purpose and true in moral guidance to the eternal principles underlying our ministry.

I would advise that immediate steps be taken to secure additional legislative enactments in the interest and conservation of the public health, especially as relates to the practice and methods of charlatans; and we should have more stringent laws compelling doctors to report cases of infectious diseases, and for the stricter enforcement of quarantine in such class of cases.

I would recommend that the Association elect or appoint four members with proper qualifications who shall arrange for from four to six public lectures each, in different sections of the state, under the auspices of the district councilor and the local component society where these lectures are delivered. The best way to effect desired legislation is to educate the people in matters of public health, and the importance of certain essential laws safeguarding and conserving their interest. While trying to express a broad utilitarian work we have been too exclusive and professional in method to appeal to the public understanding. Our most disinterested motives and greatest sacrificial labors fail to elicit any cooperative response on the part of the people, but seem rather to engender a suspicion in their minds that our purposes are selfish and tending to the establishment of a medical trust. Let us impress them with the importance and scope of the professional plans, and their relational interest in the conservation of the public weal; then can we hope not only to inspire their confidence, but enlist their active and intelligent cooperation in the aims and ends of our humanitarian purposes. The Committee on Public Policy could give material aid in this work and the members of this committee have made some definite effort in this direction.

In the interest of a broader fraternalism and a more liberal and intelligent professionalism I would recommend that an evening be set apart at our annual sessions, devoted to hearing addresses of fraternal delegates from neighboring state medical societies. I believe such entertainment would prove an interesting and profitable feature and largely increase the interest and attendance at our annual meetings.

I would recommend the discouragement of contract practice on the part of physicians either for corporations or for lodges. I fully realize these positions are sometimes attractive and appeal to young men entering the profession and to a mediocre class whose limited clientele affords a precarious livelihood. However, I think this method of engaging practice a prostitution of individual and professional dignity. It is an unfair competition born of a sordid commercialism, and not only discounts the worth of moral

and professional obligation, but destroys the true spirit and respect of professional service. In this connection I am constrained to suggest that the House of Delegates in resolutions, addressed to the medical colleges of the state, set forth the importance of having a lecture course devoted to the teaching of professional ethics. I am afraid this matter is too much neglected by medical faculties and as a consequence a large number of young men enter professional life without a proper appreciation of the ethics of their ministry.

Another reproach that calls for drastic methods is the pernicious practice indulged in by some who call themselves reputable members of the profession, of demanding a division of fees in their surgical cases of the operating surgeon. I understand we have surgeons who, if they do not directly encourage this commercialism, at least are not proof against its allurements. It is an unprofessional and dangerous practice; and too often the surgeon who makes such alignment with the medical vender, if not incompetent is less proficient in ability and technic than the best interest of the patient has a right to demand.

A doctor who does not do surgery and in whose practice conditions demanding surgical treatment arises, should feel in honor bound to call in or refer such cases, as far as he can, to the best surgical skill, and not make his patient's confidence the opportunity for commercial graft. No physician or surgeon guilty of such offence should be able to hold membership in this Association or even claim the right to practice a profession they so flagrantly prostitute. I would recommend that the House of Delegates and Legislative Committee formulate and seek to have enacted stringent and drastic laws penalizing this practice before it becomes more general.

I am constrained to recommend that in the arrangement of our scientific program we have more general session work. I believe segregated section work does an injustice to a large body of representative and earnest seekers after knowledge who attend our annual meetings, among both physicians and surgeons. The country practitioner is especially interested in the study and technic of surgical progress and has a right to enjoy the instructive methods and discussions in this special line of work. And the surgeon could very profitably hear the subjects on internal medicine presented and discussed. All alike are entitled to the full fruits of the Association's labors and should be given the opportunity.

Since the late ruling of the state superintendent of insurance prohibiting insurance companies from issuing liability or protective insurance to physicians, our defense fund becomes a matter of the most vital importance to the members of our Association and should receive the consideration worthy of the great ends it would safeguard and conserve.

I would advise that this fund be made an essential feature of our organization to be liberally supported and carefully expended. To this end I would recommend that \$1,000 be appropriated by the Association to be added to whatever sum may be already in the hands of the committee, as I understand there will be a somewhat heavy expense against this fund the coming year due, in part, to the payment of fees in cases already in process of adjudication by the committee, and in defense of cases now pending. I congratulate the Association on the effective work that has been accomplished by our most efficient committee during the past year in preventing and defending malpractice suits against members of this Association. Their report will speak for itself and fully justify our confidence in the purposes and reach of the defense fund to safeguard and defend our professional interest.

I most earnestly recommend that the House of Delegates advocate and support the passage of the Owen bill and request the members of this Association to write their congressmen and senators urging them to support the same when it comes up for passage.

Respectfully submitted.

ROBERT H. GOODIER, President.

On motion the president's message was referred to the Judicial Council.

The president resumed the chair and called for the report of the Committee on Arrangements.

Dr. S. G. Kelly, chairman, announced that the program contained practically all the information concerning the arrangements for the meeting. He directed attention to the meeting-places for the sections and especially to the entertainment to be given Wednesday night at the Elks Club, to which all members and visitors were cordially invited.

The report of the Judicial Council was read by the chairman, Dr. F. J. Lutz. On motion the report was received. (See page 22.)

The report of the Committee on Medical Education was read by the chairman of the committee, Dr. George Dock. On motion the report was received.

The report of the Committee on Scientific Work was called for but none of the committee was present. The president announced that a change in the order of papers had been ordered by the Executive Committee on account of the omission from the program of the report of the Committee on Cancer, and this committee would make its report to the General Session, Wednesday morning at 9 o'clock; also that the papers by Dr. Binnie, Dr. Bartlett and Dr. Bailey, because of their dealing with malignant diseases, would be read in connection with the report.

The report of the Committee on Public Policy and Legislation was read by the chairman, Dr. Robert M. Funkhouser. On motion the report was adopted. (See page 31.)

The Committee on Defense reported, the chairman, Dr. Joseph Grindon, reading the report. On motion the report was received. (See page 28.)

The report of the Committee on Publication was presented by Dr. A. W. McAlester, Jr. On motion the report was received. (See page 30.)

The report of the Committee on Tuberculosis was read by the chairman, Dr. C. H. Neilson. On motion the report was received.

DR. C. W. FASSETT, St. Joseph: The report of the committee is most excellent, but I regret to note that the good work done in St. Joseph seems to have been overlooked. We have an active anti-tuberculosis society, a free dispensary, visiting nurses, etc., all doing good work.

The report of the Committee on Necrology was on motion received as printed in the book of reports without reading.

DR. FRANKLIN E. MURPHY, Kansas City: I observe that the necrology report has failed to record the death of Dr. B. F. Fryer of Kansas City.

THE PRESIDENT: I suggest that this information be added to the report.

THE PRESIDENT: We now come to the appointing of the nominating committee. It has been suggested that this committee shall include in its report the names of delegates to the American Medical Association. If there is no objection the committee will present three names to represent our Association in the national body for the next two years. I appoint the following members on the nominating committee: W. S. Allee, Miller County; T. O. Klingner, Greene County; A. H. Hamel, St. Louis City; William Frick, Jackson County; C. B. Clapp, Randolph County; W. L. Brosius, Daviess County; T. J. Downing, Ralls County; Charles W. Fassett, Buchanan County; V. Q. Bonham, Howard County; Tinsley Brown, Caldwell County.

The report of the secretary was read by the secretary, E. J. Goodwin. On motion the report was received and referred to the Judicial Council.

The treasurer's report was read by J. F. Welch, and on motion received and referred to the Judicial Council.

The following amendments to the by-laws were read and on motion referred to the committee on amendments to the constitution and by-laws:

Introduced by DR. T. O. KLINGNER, Springfield: Amend Chapter 12, Section 10, by adding the following clauses: No one shall become a member of a county society or continue as such who engages in contract practice with any lodge, society or individual, unless he shall receive for services rendered the regular fee as per fee bill established by the county society; provided that this does not prohibit an agreement for a particular case nor apply to examinations for an adequate fee.

No one shall become a member of a county society, or continue as such, who is guilty of soliciting patronage or obtaining patients by a division of fees or other means of inducing physicians or other persons to send patients to him for treatment or operation.

Introduced by DR. R. M. FUNKHOUSER: Amend Chapter 8, Section 1, by adding to the standing committees a Committee on Vaccination. The Committee on Vaccination shall consist of three members to serve for three years, except that on adoption of this amendment (1912) one member shall be elected to serve for three years, one to serve for two years and one to serve for one year; thereafter each year one member shall be elected to serve for three years. It shall be the duty of this committee to make a report on vaccination in Missouri and investigate the entire subject of vaccination and its relation to small-pox and other diseases and conditions; the first committee appointed under this provision to make a report of vaccination in Missouri in the last decade. An adequate amount to be decided on by the Council shall be appropriated to defray the expenses of the committee.

Dr. A. W. McAlester, Jr., Kansas City, introduced the following resolution:

WHEREAS, The American Medical Association has been doing effective work to counteract the influence of certain medical journals whose advertising pages carry many fraudulent advertisements, therefore, be it

Resolved, That it is derogatory to the best interests of the Missouri State Medical Association for members to publish articles or papers in medical journals which are not in sympathy with the purposes of this organization, and, further

Resolved, That members are hereby requested to cease publishing original articles or other matter in journals whose advertising pages contain fraudulent and questionable advertisements and give loyal and constant support to THE JOURNAL of the Missouri State Medical Association.

A. W. McALESTER, JR.

DR. F. J. LUTZ, St. Louis: In moving support of this resolution I want to say that this Association has grown large and powerful and is so necessary to every physician in this state that we can declare our opinions openly and fearlessly, even though it will be some time before all our members can be persuaded to live up to them. Those who have followed the literature of this country as represented by medical journals have long been familiar with the fact that there are two groups, one in sympathy with us, practicing what they preach, the other doing as their pocket-books are served. *The Journal of the American Medical Association* has waged a war against certain interests opposed to us. This war started by Dr. Moore of this association, who gave impetus many years ago to our warfare against proprietary medicines. *The Journal of the A.*

M. A. has carried this war to a logical conclusion. We see our members enjoying the benefits of our own Association and assisting month after month by publication in the opposition journals scientific contributions which make it possible for those same journals to go to proprietary medicine men and others and tell them "our journal is supported by the main men in the medical profession, and you should advertise with us." In the meantime the organized profession of the country is fighting these immense pocket-book concerns. I believe we should set the seal of our disapproval on our members who furnish articles for these opposition journals. There are plenty of journals in this country who believe as we believe, who are ethical and in which all the contributions can be published with benefit. This Association should follow up the good work started with the resolution of Dr. Moore in St. Louis several years ago. We should not only condemn the medicine, but fight the man who lets his articles go to these journals in opposition to our principles.

Moved and seconded that the resolution be referred to the Council. Carried.

Dr. R. M. Funkhouser, St. Louis, introduced the following resolution and moved its adoption:

Resolved, That this association gives its support to the Owen Bill, Senate Bill No. 1, to create a Department of Public Health.

That it repudiates any wish or attempt to regulate or control the practice of medicine or to discriminate against any school or system of medicine.

That it is in no sense favorable to a medical trust but desires that the medical profession assist in all matters pertaining to the national health.

That personal letters should be sent from members of this association to members of Congress from Missouri relating to the importance of this bill and its passage.

The motion to adopt was seconded and carried.

Dr. Funkhouser, St. Louis, moved the adoption of the following resolution:

Resolved, That the cause of Pure Food and Drugs has suffered a severe loss in the resignation of Dr. Wiley from the Bureau of Chemistry.

Resolved, That this association expresses its approval of his official acts while connected with the Bureau.

The motion to adopt was seconded and carried.

It was moved and seconded that both resolutions be given the press for publication and that Dr. Wiley be given a copy of the second resolution. Seconded and carried.

Dr. T. O. Klingner, Springfield, introduced the following resolution:

At a meeting of the Greene County Medical Society held on Dec. 8, 1911, the following resolutions were adopted:

Resolved, That no one shall become a member of the Greene County Medical Society, or continue as such, who engages in contract practice with any Lodge, Society or individual, unless he shall receive for services rendered the regular fee as per fee bill, established by this society. Provided that this shall not prohibit an agreement for a particular case, nor apply to examinations for an adequate fee.

Further. No one shall become a member of the Greene County Medical Society nor continue as such, who is guilty of soliciting patronage, or obtaining patients by a division of fees, or other means of inducing physicians or other persons to send patients to them for treatment or operation.

At a meeting of the Greene County Medical Society held on April 26, 1912, I was instructed to introduce these resolutions in the House of Delegates of the State Medical Association and move that the House of Delegates instruct the Secretary of the State Association to forward a copy of these resolutions to all component societies with the instruction that these or similar resolutions of like intent be adopted and made a part of the constitution and by-laws of the component societies.

Mr. President, I desire to make that motion.

After discussion by Drs. Lutz, Elam, Madry, Tinsley Brown, the resolution was referred to the committee on constitution and by-laws.

Dr. Dora Greene-Wilson, Kansas City, read a report on public health educational work (see page 34) and moved that a committee on public health education be formed, whose duties shall be to cooperate with the Public Health Educational Committee of the Council on Health and Public Instruction of the American Medical Association, and all the standing committees on health of the State Society; to encourage the appointment of like committees in the county medical societies; all committees mentioned to work for the dissemination of information concerning the knowledge and prevention of disease, by giving public lectures, distributing literature, or by any means deemed best by said committees; a careful record being kept of all work done, and reported to the state chairman of Public Health Education Committee of the American Medical Association, so that it may be embodied in the annual report of that officer to the Council on Health and Public Instruction.

On motion the matter was referred to the Committee on Public Policy and Legislation.

The secretary read a communication from the board of curators of the University of Missouri appertaining to the establishment of the four year term in medicine at Columbia. On motion the communication was referred to the Committee on Medical Education.

The selection of the meeting-place for the 1913 session was then taken up and St. Joseph and St. Louis extended invitations. A ballot was taken which resulted in the choice of St. Louis, whereupon Dr. Fassett moved that the selection of St. Louis be made unanimous. Carried.

On motion the House adjourned till 9 a. m. Thursday.

THIRD DAY — THURSDAY, MAY 23

COURT-HOUSE

The House of Delegates was called to order by the president, Dr. R. H. Goodier, at 9:10 a. m.

On motion roll call was dispensed with.

On motion the reading of the minutes of the previous session was dispensed with.

The Nominating Committee made its report as follows:

REPORT OF THE NOMINATING COMMITTEE

Your nominating committee entered on its duties with a full appreciation of the responsibility resting on it, and with an earnest desire to select men for officers of this Association who would not only reflect credit on the judgment of this committee from a viewpoint of availability, harmony and fitness for their several offices, but who would by their influence and services maintain the integrity and promote the prosperity of our Association.

This committee has endeavored to apportion the honors at its disposal so as to cover nearly every portion of the state, as well as to encourage such sections as have shown effective interest and enthusiasm in association work.

Ambition in the direction of securing capable and loyal officers was intensified by well-defined expressions of discontent from various quarters of the state in which our membership has greatly decreased, and where the county societies have either become inactive or have ceased to exist. Criticism has been freely made that certain councilors have been derelict in the discharge of their duties and as a consequence the county societies in their districts are in a state of disintegration and imminent danger of an early demise.

It is the judgment of your committee that no member should accept office in this Association who is not willing to devote the necessary time and make the sacrifices which inevitably follow in the discharge of his duties.

Your committee would respectfully urge the adoption of a resolution by the House of Delegates to the effect that all councilors who cannot for any reason attend to their several duties be requested to send in their resignations at once.

Your committee respectfully submits the following nominations:

For Vice-Presidents: J. S. Wallace, Brunswick; H. S. Crawford, Harrisonville; J. N. Baskett, Hannibal; C. C. Conover, Kansas City; J. H. Timberman, Marston.

For Councilors: Eighth District, L. W. Cape, Maplewood; Thirteenth District, F. E. Murphy, Kansas City; Twentieth District, F. J. Lutz, St. Louis; Twenty-Third District, T. C. Allen, Bernie; Fourth District, J. B. Wright, Trenton; Twenty-Second District, G. S. Cannon, Fornfelt; Twenty-Seventh District, J. H. Elliott, West Plains.

For Delegates to the American Medical Association: C. R. Woodson, St. Joseph; H. L. Reid, Charleston; A. W. McAlester, Jr., Kansas City.

For Member Committee on Public Health and Legislation: B. B. Parrish, Kirksville.

For Members Committee on Defense: Joseph Grindon, St. Louis; W. B. Dorsett, St. Louis; R. E. Schlueter, St. Louis.

Signed,

W. S. ALLEE, Chairman.

T. O. KLINGNER,

A. H. HAMEL,

WILLIAM FRICK,

C. B. CLAPP,

W. L. BROSIUS,

T. J. DOWNING,

V. Q. BONHAM,

TINSLEY BROWN,

CHARLES W. FASSETT, Secretary.

The Committee.

It was moved and seconded that the report be received and adopted. Carried.

Dr. W. L. Brosius, Gallatin, read the report of the Committee on Amendments to the Constitution and By-Laws:

"The committee recommends the adoption of the amendment adding a standing committee on vaccination, but the committee disapproves the clause appropriating money to pay the expense of gathering statistics in this connection as it should be the duty of the State Board of Health to pay for such work.

"The committee recommends that the amendment offered by Dr. Klingner in regard to conduct of members lie over for a year."

After a discussion by Drs. W. S. Allee, Franklin E. Murphy and W. L. Brosius, it was moved that the amendment to add a committee on vaccination to the standing committees be adopted except that portion relating to the appropriation of money for expense. Seconded and carried.

It was moved and seconded that the amendment offered by Dr. Klingner lie over a year during which time it shall be investigated and considered and brought up for action at the 1913 session. Carried.

Dr. Franklin E. Murphy read the report of the Judicial Council as follows:

REPORT OF THE JUDICIAL COUNCIL, MAY 23, 1912

The president's message having been referred to the Council for consideration, was duly considered and the Council reports as follows:

In the recommendation that immediate steps be taken to secure additional legislation in the interest and conservation of the public health and in the control of quackery, we recommend that the efforts of the society in this direction be not relaxed and that we be ever on the alert for attacks by those selfish interests arranged against us and which mislead the public.

In passing we would call attention to the inconsistency in the action of those doctors who urge additional laws looking to the conservation of the public health, who themselves fail to observe the law in regard to the reporting of infectious disease and enforcement of strict quarantine.

In recommendation that four properly qualified members be elected or appointed to arrange for lectures in different parts of the state, looking to the instruction of the public, in health matters, these

lectures to be given under the auspices of the district councilor and the local medical society, we recommend that these lecturers be appointed by the Executive Committee of the Judicial Council, the lecturers to cooperate with the Committee on Public Policy and Legislation.

We believe that lodge and similar contract practice is becoming a great menace to the profession, both as to its ideals and to its organization, and one that calls for radical action on the part of the State and County Societies. We indorse in the fullest the recommendation of the President that this character of work by members be discouraged; and further recommend that the incoming President appoint a committee consisting of three members to investigate the prevalence in this state of contract practice in industrial companies, fraternal organizations and municipal departments and report the data thus secured at the next annual meeting.

In the recommendation that the House of Delegates in resolutions addressed to medical colleges, urge the establishment of a series of lectures for the teaching of professional ethics, we recommend that the society request schools of medicine to show no neglect of the lecture course in this important particular.

In the matter of the arrangement of the scientific program, that more work be given in general sessions, recommended by the President, we believe that with changing conditions changes in arrangement of program must be made. It appears to us, however, that at this time a fairly practical arrangement of section and general session work has been reached, and that for the time this arrangement be not changed.

We believe that there is the necessity for an augmented defense fund. It is reasonably certain that more demands are to be made upon this fund than in the past, as, following the ruling of the State Superintendent of Insurance, many members will drop their policies in indemnity companies. We indorse the President's recommendation that \$1,000.00 be appropriated to the defense fund. This Society is a large influential body. As we grow in numbers and in influence, we must assume new responsibilities and take up new enterprises, looking to the elevation of standards, advancement of the profession and raising the dignity of the practice. This necessitates the expenditure of money. Members are urged to give this matter their earnest thought, as a plan must soon be devised whereby the revenues of the Society may be increased to meet the increased expense of growth and expansion.

In the matter of the resolution submitted by Dr. McAlister, pertaining to the publication of articles in journals antagonistic to the interests and policies of the *Journal of the American Medical Association*, in that they solicit and carry advertisements of articles, medicinal and otherwise, that do not meet with the approval of the Council of Pharmacy of the A. M. A., we express our approval of this resolution and recommend its adoption.

We approve heartily the recommendation that the members of the Society advocate and lend all support to the Owen Health Bill.

We have considered the recommendation of the President in relation to the pernicious practice of the division of fees by specialists and practitioners of medicine and realize the fact that: (1) the practice prevails to a large extent in this state; (2) we think it is a matter that should be curbed to the extent of expelling from membership in this Association any member whether he gives or receives a secret division of fees if upon proper evidence and after a fair trial, he is convicted of the offense. We firmly believe a physician who is called to treat a patient and refers the case to a specialist is entitled to a reasonable fee from the patient, but believe he should collect his fee from the patient with the full understanding that it is for his services alone.

The Council recommends that the counties of Cedar and Dade be taken from the 29th district and added to the 16th district on account of the better facilities of transportation to the 16th district.

The Council has reelected Dr. Goodwin Secretary-Editor of the Association and Dr. J. Franklin Welch treasurer of the Association.

Respectfully submitted,

FRANKLIN E. MURPHY,
Acting Chairman.

It was moved that the report be received and adopted. After a discussion by Drs. Woodson Moss, W. G. Moore, W. S. Allee, A. H. Hamel, Herman Pearse, Robert Barclay, C. R. Woodson, the motion carried.

Dr. Frank DeVilbiss moved that the Committee on Scientific Work for the 1913 session be instructed to pay more attention to general session work than to section work. Seconded and carried.

The report of the Committee on Medical Expert Testimony was called for by the president. Dr. C. R. Woodson said the committee had not met to formulate any report and stated that the American Psychological Association had prepared a very comprehensive report which he had intended to submit to the House of Delegates, but had failed to bring it with him; he would, he said, place a copy in the hands of the Committee on Public Policy and Legislation.

The secretary read a resolution transmitted from the general session, as follows:

In view of the fact that pellagra has been shown to be widely distributed over a great part of this country, and that there is good reason to believe that there are a number of cases in this state, albeit most of them unrecognized, and that it seems highly probable that the disease is everywhere in this country on the increase, therefore it is most important that Missouri should follow the lead of other states in learning as nearly as possible the prevalence of this disease within her borders, in order that physicians may be duly warned and alert to recognize it, and that means may be devised and organized to check its spread.

Resolved, That the president appoint a commission of three, whose duty it shall be to examine into the prevalence of pellagra in this state, preferably in conjunction with the State Board of Health, and to report thereon at the next annual meeting.

That the House of Delegates be requested to appropriate the sum of \$100 for the expenses of this commission.

On motion the resolution was laid on the table after discussion by Dr. Dorsett.

Dr. Dora Greene-Wilson asked if action had been taken on the report presented by her on the work of the Public Health Education Committee. She was informed by the president that the committee to which the report was referred had not reported and no action could be taken.

The secretary read the following resolution from the Medical Section:

WHEREAS, The committee on trachoma investigation has demonstrated that trachoma (granulated lids) is prevalent in all parts of Missouri; and

WHEREAS, Neglected trachoma leads to permanent impairment of vision and sometimes to blindness; and

WHEREAS, Trachoma is a dangerous contagious disease and is so designated by the United States Public Health and Marine-Hospital Service; therefore, be it

Resolved, That the House of Delegates, through the committee on public policy and legislation requests that all city and country health boards add trachoma to the list of reportable diseases; and further be it

Resolved, That the committee requests the state boards of health to add trachoma to the list of communicable disease reportable monthly by local boards of health.

On motion the resolution was adopted.

On motion the House of Delegates adjourned *sine die*.

MINUTES OF THE JUDICIAL COUNCIL

COURT-HOUSE — MAY 21

The Judicial Council was called to order at 12:30 p. m., May 21, the chairman, Dr. F. J. Lutz, presiding.

The following councilors answered the roll call: Drs. C. L. Evans, L. A. Todd, W. B. Dorsett, A. R. McComas, C. H. Dixon, J. D. Brummall, C. M. McConkey, F. E. Murphy, E. N. Chastain, Frank DeVilbiss, W. A. Clark, F. J. Lutz, A. H. Madry.

The Chair appointed the following members of the Auditing Committee: Drs. F. DeVilbiss, C. H. Dixon, A. H. Madry.

Dr. DeVilbiss moved that a committee of six be appointed to consider the recommendations in the president's message. Carried. The chairman appointed Drs. Murphy, Brummall, McComas, Dorsett, Todd and Evans.

The resolution introduced in the House of Delegates by Dr. A. W. McAlester, Jr., and referred to the Council, was considered and on motion the Council approved the purposes and recommended that the House adopt the resolution.

It was moved and seconded that a committee be appointed to consider the subject of division of the fee, mentioned in the president's message. This carried and the Chair appointed Drs. Dorsett, Clark and McConkey.

On motion adjourned to 2 p. m., May 22.

MEETING OF MAY 22

The Council was called to order by the chairman at 2:15 p. m.

The subcommittee appointed to consider the president's recommendations on fee-splitting reported as follows:

We, your committee appointed to consider the pernicious practice of the division of fees by specialists and practitioners of medicine realize

the fact: (1) The practice prevails to a large extent in this state; (2) we think it is a matter that should be curbed to the extent of expelling from membership in this Association any member whether he gives or receives a secret division of fees, if on proper evidence after a fair trial he is convicted of the offense. We firmly believe that a physician who is called to treat a patient and refers the case to a specialist is entitled to a reasonable fee from the patient, but believe he should collect his fee from the patient with the full understanding that it is for his fee alone.

On motion the report was adopted.

Dr. Murphy for the committee appointed to consider other parts of the president's message reported. After a discussion of Drs. DeVilbiss, McComas, Murphy and Brummall, the report was adopted with amendments and ordered incorporated in the report of the Council to the House of Delegates. (See House of Delegates, May 23, page 22.)

The auditing committee reported having found the books of the treasurer and of the secretary correct.

On motion the report was adopted.

The secretary read letters from members in the third district, and informed the Council of the condition in this district.

After a discussion Dr. Dixon moved that the secretary be instructed to write the councilor of the Third District and ascertain whether he can take active steps for the immediate reorganization of the whole district to bring the various counties to the standard of membership formerly held. Seconded by Dr. Kelly and carried.

Dr. C. B. Clapp of Moberly, Randolph County, was present and was invited to speak of conditions in Randolph County and the Tenth District. He stated that Randolph County had not held a meeting since the time of Dr. McCormack's visit several years ago; that there is a total of forty-one physicians in the county and at one time there was a membership of thirty-eight; at present there are only twelve; that he and other doctors had tried to infuse new life into the society but for various reasons have not met with success; that a meeting had recently been held at which it was suggested that the councilor of the district be invited to attend, and it was surprising to learn that few of the physicians knew who the councilor was.

Dr. Dixon, councilor of the district, explained that he was elected last year and had not fully familiarized himself with his duties. He was anxious he said to have his district completely organized and would pay special attention to the work during the next year.

The secretary informed the Council of the situation in St. Louis Medical Society where the officers refused to pay back dues to the State Association for delinquent members of the St. Louis Medical Society from whom the St. Louis

Medical Society collects current and delinquent dues. After a discussion by Drs. Kelly, DeVilbiss, Madry and J. H. Amerland, treasurer of the St. Louis Medical Society, Dr. Kelly moved that the Council rule that component societies, in order to maintain good standing in the Association, must pay the annual assessment for every year for which the component society collects from its members and that the secretary be instructed to send a circular letter to component societies incorporating this resolution. Seconded by Dr. DeVilbiss and carried.

Dr. Murphy moved that the counties of Cedar and Dade be removed from the Twenty-Ninth District and added to the Sixteenth District. Seconded by Dr. DeVilbiss and carried.

Election of officers for the ensuing year resulted in the following: chairman of the Judicial Council, Dr. Frank J. Lutz, reelected; secretary of the Council, Dr. E. J. Goodwin, reelected; secretary and editor of the Association, Dr. E. J. Goodwin, reelected; treasurer, Dr. J. Franklin Welch, reelected.

Dr. Evans moved that a properly executed bond for \$4,000 be renewed by the treasurer, and that the bond of the secretary for \$1,000 be renewed. Carried.

On motion adjourned *sine die*.

MINUTES OF THE GENERAL SESSIONS

FIRST DAY—TUESDAY, MAY 21

SEDALIA THEATER

The meeting was called to order by Dr. J. H. Amerland, St. Louis, vice-president, who introduced the president, Dr. Robert H. Goodier of Stoutsville.

Dr. Goodier read the annual address of the president.

The oration on medicine was delivered by Dr. C. R. Woodson of St. Joseph.

The oration on surgery was delivered by Dr. C. M. Nicholson, St. Louis.

SECOND DAY—WEDNESDAY, MAY 22

COURT-HOUSE

The meeting was called to order at 9:20 a. m. by the president.

The report of the Committee on Cancer was called for and Dr. F. J. Lutz, St. Louis, read the report of the chairman of the committee.

Dr. Marsh Pitzman, St. Louis, read the third part of the report entitled "The Laboratory Side of the Question."

The president announced that the papers by Drs. Binnie, Bailey and Bartlett, being on related subjects, would be read before the discussion was opened.

Dr. J. F. Binnie, Kansas City, read a paper entitled "Carcinoma of the Stomach."

Dr. Willard Bartlett, St. Louis, read a paper on "Gastrojejunostomy: Indications and Technic."

Dr. Fred W. Bailey, St. Louis, read a paper entitled "Intestinal Obstruction Resulting from Malignant Growths: Report of a Case."

The president announced that a case of acromegaly was present in charge of Dr. Louis Behrens of St. Louis. Dr. Reder moved that five minutes' recess be taken to examine the case. This was seconded and carried.

Dr. Behrens read a description of the case and then informed the meeting that the patient had been sent away but would be presented to the Medical Section at 1 o'clock.

The discussion on the papers read was opened and the following members took part: Drs. J. M. Bell, St. Joseph; Francis Reder, St. Louis; T. A. Potter, St. Joseph; O. B. Campbell, St. Joseph; William Engelbach, St. Louis; J. G. Sheldon, Kansas City; O. H. Brown, St. Louis; E. H. Skinner, Kansas City; W. G. Moore, St. Louis; Dr. Willard Bartlett closing.

The president announced that Dr. Hempelmann, who was next on the program, had consented to allow Dr. D. L. Harris, St. Louis, five minutes of his time to present a short description of "Experimental Work on Antirabic Immunization with Desiccated Virus," as Dr. Harris was compelled to leave the city at noon. There being no objection, Dr. Harris proceeded to give a description of his method of preparing and using the virus.

Dr. L. H. Hempelmann, St. Louis, read a paper entitled "Chronic (Recurrent) Septic Endocarditis."

The following members took part in the discussion on these papers: Drs. L. H. Behrens, St. Louis; William Engelbach, St. Louis; W. G. Moore, St. Louis; E. L. Stewart, Kansas City; Dr. Hempelmann and Dr. Harris, closing.

SECOND DAY — WEDNESDAY, MAY 22

EVENING SESSION — SEDALIA THEATER

The session was called to order by the president at 8:30 p. m. This was a public meeting and a large audience was present.

Dr. F. J. Lutz, St. Louis, delivered a popular lecture on "Cancer; Illustrated with Lantern Slides."

Dr. Joseph Grindon, St. Louis, lectured on the subject "Vaccination: The Claims and the Facts." This lecture was also illustrated with lantern slides.

Moving pictures showing the cause of the spread of disease were to be shown, but owing to the lateness of the hour only one of the series was shown; this was the story of "The Awakening of John Bond," showing how the disease was contracted and something of the benefits of open-air treatment.

The meeting adjourned at 10:50 p. m., after which the members were entertained by the Pettis County Medical Society at a smoker in the Elks Club rooms.

THIRD DAY — THURSDAY, MAY 23

COURT-HOUSE

The meeting was called to order by the president at 10:20 a. m., immediately after adjournment of the House of Delegates.

The election of the president for the ensuing year was the first order of business, and the following names were put in nomination: Drs. E. H. Miller, Liberty; Dr. Frank DeVilbiss, Tipton; Dr. W. J. Ferguson, Sedalia; Dr. C. M. Nicholson, St. Louis; Dr. Robert M. Funkhouser, St. Louis. Drs. Miller, DeVilbiss and Ferguson withdrew.

After a discussion on the constitutional qualifications of candidates for the presidency, Dr. Nicholson moved that the rules be suspended and Dr. R. M. Funkhouser of St. Louis be elected president by unanimous consent. The motion was seconded by several members and carried.

The president appointed Drs. Nicholson and Dorsett to conduct Dr. Funkhouser to the chair. Dr. Goodier in surrendering the gavel to Dr. Funkhouser thanked the Association for the honor conferred on him and for the uniform courtesy and cooperation of the members during the year.

Dr. Funkhouser drew the applause of the members in a brief address in which he thanked the members for the confidence expressed by electing him to the highest position in their gift; he reminded them that if the Association is to accomplish anything or the administration to mean anything for the advancement of the objects for which we stand, it can come only through the full support and assistance of every member, and for this he made an earnest plea.

Dr. GOODIER in the chair: The next order of business is the election of the orator on medicine.

Dr. A. H. Hamel, St. Louis, was placed in nomination for orator on medicine. On motion duly seconded the rules were suspended and the secretary was instructed to cast the unanimous ballot of the Association for Dr. Hamel.

The election of the orator on surgery was next taken up and Dr. E. F. Yancey, Sedalia, was nominated. It was moved and seconded that the rules be suspended and the secretary was instructed to cast the unanimous ballot for Dr. Yancey.

The scientific program was taken up at this point and the following papers were read:

"Medical Economics," by Dr. A. H. Madry, Aurora.

"The Clinical Symptoms of Hydrophobia; Report of Two Cases," by Dr. Walter E. Harrall, St. Louis.

Discussion by Dr. O. W. H. Mitchell, Columbia. "The Roentgen-Ray Treatment of Postoperative Sarcoma," by Dr. W. L. Brosius, Gallatin.

It was moved and seconded that those papers which had not been read but were published in the program should be read by title and published in THE JOURNAL. Carried.

On motion, adjourned till 1:30 p. m.

AFTERNOON SESSION

The meeting was called to order at 1:50 p. m., the newly elected president, Dr. R. M. Funkhouser, in the chair. None of the essayists on the program being present and there being no further business, the meeting adjourned *sine die*.

MINUTES OF THE MEDICAL SECTION

COURT-HOUSE — MAY 21

The Medical Section of the fifty-fifth annual meeting met at Sedalia, May 21, 1912.

The meeting was called to order at 1:50 p. m. by the chairman of the section, Dr. G. Wilse Robinson, Kansas City.

The minutes of the previous meeting having already been published in THE JOURNAL, it was moved that they be adopted as published. Seconded and carried.

Consideration of the scientific program:

Dr. Halsey M. Lyle, Kansas City, read a paper entitled "Vaccination Treatment of Skin Diseases."

Discussion by Drs. Grindon, Frick, Bazan, Dock, Bell, Bliss and Brosius; Dr. Lyle closing.

Dr. M. H. Moore, Dearborn, being absent, the second number on the program, "Erythema Nodosum," was passed, and Dr. J. M. Bell, St. Joseph, was called on to read his paper on "Auto-Intoxication."

Discussion by Drs. Conover, Wills, Lyle and Broderick; Dr. Bell closing.

On motion Dr. C. Walker Watts, Fayette, was called on to read his paper at this time, owing to the fact that he had been called home on account of the illness of his wife. The title of the paper read by Dr. Watts was "Habit as a Cause of Many Constitutional Diseases and How to Overcome it."

There was no discussion.

Dr. J. D. Brummall, Salisbury, being absent, his paper on "Astasia Abasia" was passed and Dr. H. Unterberg, St. Louis, was called on to read his paper on "Training of Physicians for Service in State Hospitals."

The following paper on the program by Dr. M. A. Bliss, St. Louis, being so closely allied to that of Dr. Unterberg, the Chair announced that the two papers would be discussed together.

Dr. M. A. Bliss read a paper entitled "Training of Nurses for Service in State Hospitals for the Insane."

Discussion by Drs. Overholser, Woodson, Glasscock of Kansas City and William G. Moore; Drs. Unterberg and Bliss closing.

Dr. O. B. Hall, Warrensburg, read a paper on "The Relative Position of Medicine in Modern Therapeutics."

Discussion by Dr. Patterson; Dr. Hall closing.

Dr. John Green, Jr., St. Louis, read the report of the Committee on Trachoma.

Discussion by Drs. Brown, Noyes, Leonard, Fisher, Hobrecht and Titsworth, Dr. Green closing.

Dr. C. R. Woodson moved that the report of the Committee on Trachoma be adopted and that the section request the various boards of health to make this disease reportable. Seconded and carried.

Dr. Joseph Grindon stated that the committee was appointed at the request of the section after the House of Delegates had adjourned last year and that no provision was made for defraying the expenses of the committee. The expense having been borne by the members of the committee, he moved that the Medical Section request the House of Delegates to reimburse the committee for the amount expended in procuring data for this report. Seconded and carried.

On motion the section adjourned at 4:50 p. m.

SECOND SESSION — MAY 22

COURT-HOUSE

The second session of the Medical Section met at 1:50 p. m., the vice-chairman, Dr. John Green, Jr., St. Louis, in the chair.

By order of the section the sixth paper on the program, entitled "Social Aspects of Gonorrhea," by Dr. Ferdinand Schreiman, Concordia, was read.

Discussion by Dr. Scherck, St. Louis; Dr. Schreiman closing.

By invitation Dr. Louis Behrens, St. Louis, presented a paper on "Acromegaly," with demonstration of a patient.

Dr. F. R. Morley, Sedalia, presented a patient and gave a history of a case of supposed brain tumor.

Dr. G. Wilse Robinson, Kansas City, discussed the case presented by Dr. Morley.

Dr. W. H. Luedde, having had the patient under his care in St. Louis, gave a brief history of the case while under his treatment.

Dr. H. Unterberg, St. Louis, had seen the patient, and gave a brief history of his examination.

Dr. George Goins, Breckenridge, having appeared late on the program of the first day was

unable to read his paper. This being no fault of his the Chair called for Dr. Goins' paper entitled "Psychotherapy" to be read at this time.

Discussion by Drs. Booth and Woodson.

Dr. O. H. Brown, St. Louis, gave a brief extract of his paper on "Acidosis."

Discussion by Drs. Engelbach, Brady and Behrens; Dr. Brown closing.

Dr. Jules M. Brady, St. Louis, read a paper entitled "Empyema in Infancy."

Discussion by Dr. Broderick; Dr. Brady closing.

Dr. D. E. Broderick, Kansas City, read a paper entitled "Hemorrhagic Diathesis in Children."

Discussion by Dr. Brady.

Dr. William Engelbach, St. Louis, read a paper entitled "Nephritis: Its Diagnosis and Treatment."

Discussion by Drs. William G. Moore, Goins and Behrens; Dr. Engelbach closing.

Dr. T. M. Paul, St. Joseph, read a paper entitled "A Case of Double Chancre and Gonorrhea with Confrontation."

Dr. R. B. H. Gradwohl, St. Louis, read a paper entitled "Serologic Diagnosis of Syphilis and Gonorrhea; the Wassermann; the Gonorrheal Complement-Fixation Test; the Weil-Cobra-Venom Test."

Discussion by Dr. Paul, St. Joseph; Dr. Gradwohl closing.

Dr. J. W. Marchildon, St. Louis, read a paper on "Treatment of Gonorrhea."

Discussion by Drs. Paul and Gradwohl; Dr. Marchildon closing.

Owing to the limited time remaining for the scientific program, the Chair requested the following papers to be read in brief:

"The Dangers of Specialties," by Dr. E. H. Miller, Liberty.

"The Heart Musee," by Dr. M. L. Sands, Warsaw.

The Chair announced that nominations for the ensuing year were now in order.

Dr. John Green, Jr., St. Louis, was nominated as chairman of the section for the ensuing year.

On motion of the section the secretary was instructed to cast a unanimous vote for Dr. Green.

Dr. George Goins, Breckenridge, was nominated as vice-chairman of the section, and on motion duly seconded, the secretary was instructed to cast a unanimous vote for Dr. Goins.

Dr. O. H. Brown, St. Louis, being nominated for secretary of the section, the secretary was instructed to cast a unanimous vote for Dr. Brown.

On motion the officers of the section were extended a unanimous vote of thanks for the excellent way in which they had conducted the session at this meeting.

On motion the section adjourned *sine die*.

MINUTES OF THE SURGICAL SECTION

TUESDAY, MAY 21

COURT-HOUSE

The meeting was called to order at 2 p. m. by the chairman, Dr. O. B. Campbell, St. Joseph. Thirty members were present.

The minutes of the last meeting were read and approved.

The following papers on the scientific program were read and discussed:

Symposium on Hypertrophy of the Prostate Gland:

a. "History, Etiology, Pathology, Symptomatology," by Dr. W. T. Elam, St. Joseph.

b. "Operative and Pathologic Specimens of Hypertrophied Prostates with Methods of Examination and Operation in Prostatic Obstruction: Illustrated with Lantern Slides," by Dr. Bransford Lewis, St. Louis.

Discussion by Drs. W. T. Coughlin, St. Louis; T. E. Potter, St. Joseph; and Drs. Elam and Lewis in closing.

"Surgery of the Female Urethra," by Dr. Fred J. Taussig, St. Louis.

Discussion by Dr. J. D. Griffith, Kansas City; Dr. Taussig closing.

"Fractures of the Larynx," by Dr. W. E. Sauer, St. Louis.

Discussion by Dr. J. D. Griffith, Kansas City; Dr. Sauer closing.

"Gastric Hemorrhage Occurring After Abdominal Operations," by Dr. Max W. Myer, St. Louis.

Discussion by Dr. William J. Frick, Kansas City; Dr. Myer closing.

During the session 105 members attended; twenty were present at close of session; adjournment, to meet May 22 at 2 p. m.

WEDNESDAY, MAY 22

COURT-HOUSE

The meeting was called to order at 2 p. m. by the vice-chairman, Dr. W. T. Reynolds, Kansas City. There were thirty-five members present when the meeting opened.

The symposium on surgery of the stomach was transferred to the general session on May 22 and read at that meeting.

The following papers were read and discussed:

"Further Observations on Membranous Pericolicitis and Allied Conditions in the Ileocecal Region," by Dr. Jabez N. Jackson, Kansas City.

Discussion by Drs. H. E. Pearse, Kansas City; C. H. Wallace, St. Joseph; E. H. Skinner, Kansas City; J. D. Griffith, Kansas City; A. R. Keifer, St. Louis; Francis Reder, St. Louis; Dr. Jackson closing.

"Abdominal Pain, Differentially Considered," by Dr. J. Q. Chambers, Kansas City. (Transferred from General Session.)

"Fixity of Lower Jaw; Report of Case; Double Hare-Lip with Operative Measures for Relief," by Dr. Francis Reder, St. Louis.

Discussion by Dr. J. D. Griffith, Kansas City; Dr. Reder closing.

The election of officers for 1912-13 resulted as follows: Dr. W. T. Reynolds, Kansas City, chairman; Dr. C. B. Clapp, Moberly, vice-chairman; Dr. H. P. Kuhn, Kansas City, secretary.

During the session 130 members attended the meeting. There were thirty members present at the close of the session.

REPORT OF THE COMMITTEE ON LEGAL DEFENSE

When the present Legal Defense Committee entered upon its duties last May, there were three suits pending against members of the Association. Two of these have since been dismissed. In the other case a demurrer was sustained and the plaintiff allowed to amend his petition; a second demurrer was sustained and the plaintiff may now file a third and last petition. The case is still pending, but may be regarded as virtually won.

Since the election of the present committee, there have been twelve suits brought. Of these, three have been dismissed; nine are still pending, but it seems probable that at least two of them will never come to trial.

Of the fifteen above mentioned suits, four were brought in Springfield, two in Kansas City, three in St. Louis and one in each of six other places.

During the year, five members were threatened with suits which to date have not been filed. In at least four of the five, the purposed prosecution has in all likelihood been abandoned, due doubtless in part to the fact that the prospective defendants, acting upon the advice of the Defense Committee, ignored all threats and preserved a discreet and dignified silence. We believe that the calmness and courage of the physician under attack, bred of the knowledge that the organized profession of the state will stand at his back in a righteous cause, is one of the best fruits of the defense feature. It not only often serves to deter the bringing of a suit, but relieves the physician so threatened of much mental strain and of that uncertainty which might otherwise lead to a weak compromise.

Since the original creation of a Defense Committee three years ago, there has been no case lost and none compromised.

The total of amounts allowed for defense during the year is \$477.85; \$217.85 was expended for cases left over from the former committee, and \$260 for new cases.

LEGAL DEFENSE FUND IN ACCOUNT WITH MISSOURI STATE MEDICAL ASSOCIATION

To amount on hand May 6, 1911.	\$1,529.68	
By amounts allowed May 6, 1911,		
to May 21, 1912	477.85	
To amount appropriated May 18,		
1911	1,000.00	
By amount on hand May 21, 1912	2,051.83	
	<u>\$2,529.68</u>	<u>\$2,529.68</u>

While the total sum expended by the committee during the year is not large, we must add that fees agreed upon and to be paid on adjudication of cases now pending will amount to much more. New cases are coming up in constantly increasing numbers, as more of the profession are coming to learn of the advantages of the

defense feature, so that it is fair to assume there will be a greater number of cases laid before the committee during the coming year than during that just closed. The fees asked by attorneys are growing larger as the existence of a defense fund becomes more widely known. Due consideration of these facts should make it clear that if the committee is to carry on its work in the future as in the past, the fund at its disposal must be increased.

Of still greater importance is it that the Association through its component societies should adopt such a policy as will forestall the bringing of just demands for damages against its members. While the great majority of malpractice suits originate in a desire for extortion or to avoid the payment of a just debt, it remains true that in a small minority the physician is in fact chargeable with negligence or incompetence. That no such case has as yet come to the knowledge of this committee is no guarantee that it will enjoy a like immunity in the future. Inasmuch as participation in the benefits of legal defense is obtained through membership in the local societies, it rests with the latter to safeguard the interests of the parent body. The way to do this is to rigidly exclude from membership all undesirables. While there is no one, no matter how careful, competent and upright, but may be slanderously assailed, yet it is evident that the unfit are in greater danger of being called to account than are the wise and prudent. For this reason, any man who votes in favor of admitting a careless, intemperate, incompetent or dishonest practitioner to membership in his local society may thereby be saddling needless expense as well as bringing discredit upon this Association, and thereby doing a double wrong to his brethren throughout the state. The practitioner who accepts a secret commission for bringing a patient to a surgeon or specialist is especially dangerous to the Association in this regard, since the highest bidder to whom he finally sells his prey is not, as a rule, the sort of man who will give the latter the best results, besides dispensing a cheaper grade of services than those for which the patient is ready to pay.

The committee desires to express its appreciation of the valuable legal advice given without fee by Mr. Morton Jourdan of St. Louis, and of the aid and cooperation of the secretary, Dr. E. J. Goodwin.

JOSEPH GRINDON, Chairman.

WALTER B. DORSETT.

The Committee.

SECRETARY'S REPORT 1912

The paid up membership of the Association to date, for 1912, is 2,527. This is an increase over 1911 membership of 180.

The increase in membership is encouraging because it has been accomplished under circumstances that ordinarily would have meant a decline. A very important factor in the activities of the component society is condition of the weather, for country members cannot attend meetings when the roads are bad; the winter of 1911-12 was the most severe one that has visited us in many years and many societies were prevented from holding regular meetings, while the attendance at others was diminished.

I have made strenuous efforts to induce members to maintain continuous affiliation with the component societies and the State Association and have collected dues for both 1911 and 1912 from quite a number who failed to pay their 1911 assessments. I am glad to say the sentiment in almost every instance was strongly in favor of continuous membership and the cause of temporary delinquency was due more to carelessness than to indifference.

I have inaugurated a system of sending to new members a letter of welcome. I have also sent them a copy of the constitution and by-laws and of the principles

of ethics. I believe it would be helpful to new members if they received, at the expense of the Association, a copy of the books "New and Non-Official Remedies" and "Nostrums and Quackery," published by the American Medical Association.

A potent factor in county society work is the agitation concerning the secret division of the fee between general practitioner and specialist. I find in counties where this practice is unknown or little indulged in that there is usually a good working society but in those districts where secret division of the fees is more or less common there is a spirit of indifference, suspicion, disharmony and disorganization. The subject has been discussed in several component societies and the practice condemned.

Another factor exercising a large influence in the effectiveness of the component society is the establishment of a uniform fee bill. Those societies which have adopted such a bill have prospered without friction with the people, although there has been some slight opposition on the part of a few timid members. I believe the component societies would feel encouraged in their labors if the House of Delegates would sanction in some suitable manner the adoption of a minimum fee bill applicable to local conditions in the different sections of the state.

The State Superintendent of Insurance promulgated a ruling early in the year forbidding insurance companies from issuing policies to physicians for liability in malpractice suits. This act throws the burden of protecting the members, more definitely upon the organization and the question should receive serious consideration at this meeting.

Some component societies sustain a roll of members designated as honor members who enjoy all the privileges of active members but are exempt from paying the annual dues. Such members are, however, not recognized by the State Association unless the component society pays the state assessment and, therefore, it happens that one or two of our ex-presidents and other worthy practitioners do not now enjoy membership in this body. It would seem appropriate for the House to consider a method for carrying honor members on the rolls who would be exempt from payment of dues but still enjoy all privileges of active membership.

The secretary has conducted the correspondence for various committees and this has added to the volume of work in the office and to the expense. Practically all the correspondence and detail work of the committee on Public Policy and Legislation has been done in my office, also for the committee on defense, and some of the work for committee on cancer; as in previous years the program has been assembled and printed under my supervision after being arranged by the committee on scientific work.

I have been asked on several occasions whether the Association pays sick benefits or pensions to aged, infirm and incapacitated members. The fact that these inquiries are made is evidence of a desire for benefits of some such nature; the subject has been mentioned in the past and I would suggest that we ought to use every proper effort to protect and conserve in every direction the interests of our members and not forget in our strenuous and laudable endeavors to safeguard the public health that our own members are subject to the same vicissitudes; their relief should be a matter of concern to this Association, at least equal to our labors to teach the people how to keep well.

The reports of several committees were printed and bound in pamphlet form and mailed to every delegate and alternate; other copies are here for further distribution.

The Directory of the American Medical Association is almost ready to be distributed and a few copies have been sent out. I spent a great deal of time correcting the Missouri list for this directory and endeavored to

have all who had been affiliated in 1911 or 1912 credited with membership in the organization by putting their names in capital letters. I commend this directory to the favorable attention of our members as it is undoubtedly more useful to them and far more reliable than any other medical directory.

During the past twelve months I visited ten county societies; three of these, Morgan, Montgomery and Clark, I assisted in reorganizing; four other societies were reorganized by the councilors (Harrison, Monroe, Reynolds and Saline) of the districts and the secretaries of the local societies. There are still seven counties which were at one time active but have declined into paper organizations and have not remitted any dues for several years. Some of these counties can be revived and others ought to be hyphenated with an adjoining county in which there is an active organization.

Respectfully submitted,

E. J. GOODWIN, Secretary-Editor.

TREASURER'S REPORT

RECEIPTS

1911.	
May 10	By balance on hand....\$ 5,676.62
June 16	By over draft Brown Storage Co. 22.38
Nov. 29	By refund Gould List Letter Co. 60.00
1912.	
Apr. 23	By advg. in JOURNAL.. 2,674.86
May 15	Interest on daily balance Salisbury Savings Bank 67.25
	By assessments of county societies 5,114.00
	<hr/> \$13,615.11

DISBURSEMENTS

May 22	To defense fund\$ 1,000.00
	Councilors' expense 202.24
	Committees' expense 499.55
	Treasurer's office expense 221.27
	Printing and stationery. 501.27
	Annual meeting 74.25
	Office rent..... 150.00
	Secretary's expense visiting county societies.. 706.25
	Salaries 3,165.00
	JOURNAL expense..... 2,695.00
	Miscellaneous expense... 299.94
	Postage 385.27
	Extra clerical service... 422.18
	<hr/> \$10,322.22
	To balance on hand..... 3,292.89
	<hr/> \$13,615.11

DEFENSE FUND—RECEIPTS

1911.	
May 6	By balance in treasury.\$ 1,529.00
May 22	By cash from general fund 1,000.00
1912.	
May 15	By interest on daily balance 69.28
	<hr/> \$ 2,598.96

DISBURSEMENTS

1911.	
June 7	To attorney's fees in seven cases of malpractice suits 477.85
1912.	
May 15	To balance on hand....\$ 2,121.11
	<hr/> \$ 2,598.96

REPORT OF COMMITTEE ON TUBERCULOSIS

The report of the Tuberculosis Committee for the year 1910, was rather an extensive one and dealt principally with the work then being done, particularly with the work done in the large cities such as St. Louis and Kansas City. It is true that more tuberculosis is found in the larger centers of population, but it is relatively frequent in the smaller towns and rural districts. The report of a committee of this kind should include the work done in all parts of the state. However, this report will be just as meager and one-sided as the report of the committee of 1910.

The reason is that we are entirely ignorant of tuberculosis work except that done in the large cities. This ignorance may perhaps be inexcusable but the difficulties in getting accurate and wide-spread information on the progress of tuberculosis work throughout the state are almost insurmountable.

The report of this committee on the progress of tuberculosis work in Missouri can be only a short report. There have been no distinct advances in the past year. It is true that the State Sanatorium at Mt. Vernon can now accommodate 150, but what is this among so many? The other state institutions have increased their capacity to some extent. The work in the cities such as St. Louis, Kansas City, etc., has been systematized rather than any marked advance having been made. In these cities dispensaries have been opened under the charge of competent men and treatment of the patients in many cases is followed up by visiting nurses.

In St. Louis the open-air school is doing a grand work but the demand so far exceeds the capacity of the school as to be almost pitiable. The pavilion in Kansas City is also doing a good work. The work in the smaller cities is "hit and miss" or is not done at all.

A point which we wish to emphasize is the campaign of education. The value to the commonwealth of Missouri of instruction on tuberculosis is untold. By a campaign of education we do not mean instruction in our large centers of population only, but we mean a state-wide campaign. How is this to be brought about? By the state itself, of course. We have agricultural fairs and exhibits sent to all parts of the state; we have dairy fairs and even "noted cows" exhibited in many parts of the state. If these things be important how about tuberculosis fairs and exhibits sent out in the charge of tuberculosis experts, who would give instruction to the people in all parts of this great state. The financial end of this campaign should be borne by the state, and why not? Ought such a campaign be carried by the hard-earned, begged dollars gathered together by the sale of stamps and by private donations? Such a financial endowment for this purpose, while it should be encouraged, must of necessity be limited and the work relatively unsystematic. If such a state campaign were carried out, we would soon place our state in the front rank of those having institutions for their tuberculosis patients.

Another point which we wish to emphasize is that the law enacted by the General Assembly of Missouri during the session of 1911, and approved by the Governor, March 30, 1911, receive the hearty approval of the physicians of Missouri and of this Association. By approval we do not mean an assent to this law, but that each physician become its enthusiastic advocate. This law is "An Act to provide for the creation of public tuberculosis hospital districts; to authorize the appointment of boards and commissioners of such districts; to prescribe the powers of such boards, authorizing them to appoint and fix the salaries of the officers and employees, empowering them to acquire, improve, maintain, regulate and control public tuberculosis hospitals and dispensaries; to provide for the issue of bonds on the credit of the district and the levy of a tax on said district for the purpose of establishing, improving, controlling and maintaining public tuber-

culosis hospitals and dispensaries in the State of Missouri.

Here is a law which has the possibilities, if they are used, of placing the State of Missouri alongside of Massachusetts and Pennsylvania in the care of its tuberculous citizens. This law has been passed by the state and it is now waiting to be used. How can this law be made a living, functioning factor in upbuilding this, our beloved state?

It can be done by the physicians of this state by aiding its enactment or fruition with their advice, time, and loyalty. It can be done by a special campaign of instruction in tuberculosis and the value of tuberculosis hospitals in those parts of the state where a proposed hospital is to be built; and this instruction must be given to the people before they vote their dollars for these hospitals.

It can be successfully done only by one combined effort of all the thinking men of this state. Party prejudice and strife must be laid aside. Those in charge of these tuberculosis hospitals must be chosen for their knowledge of tuberculosis and for no other cause.

RECOMMENDATIONS

1. In view of the fact that accurate and intelligent information is so difficult to obtain, your committee recommends that in addition to your regularly appointed committee, a sub-committee be appointed by this organization. This sub-committee should consist of one live, earnest, young physician, appointed from each county who should report every six months to the chairman of the general committee concerning the tuberculosis work in his county. In this way an accurate report of the actual work done in the state can be made to the Association. This report based on actual facts and the recommendation deduced from these facts, will then be more apt to receive "audience" with those authorities who open up new fields and systematize old fields of work. The tuberculosis report from this organization should produce results rather than die a non-functioning death, as has been generally the case heretofore.

2. We recommend that the state set aside sufficient funds to endow and finance a thorough, systematic, state-wide campaign of instruction in tuberculosis; that this campaign should be made by sending a tuberculosis car and exhibit to every nook and corner of this state.

3. We recommend to the physicians and other citizens of Missouri the excellent tuberculosis law recently passed by the General Assembly. We recommend that each physician agitate the need of a tuberculosis hospital in every section of the state, realizing that it is only by great agitation that great results are accomplished.

CHAS. H. NEILSON, Chairman,
 LOGAN CLENDENNING,
 E. H. MILLER,
 D. O. NOWLIN,
 V. Q. BONHAN,
 GEORGE HOMAN,
 F. B. FUSON,

The Committee.

REPORT OF PUBLICATION COMMITTEE

We, your Publication Committee, submit the following report:

It is with a great deal of personal satisfaction to ourselves and gratification to the members of the Association to know that the JOURNAL has at last been placed upon a self-sustaining basis, exclusive of the editor's salary. We have continued the arrangements made with the American Medical Association to print the JOURNAL for us and it has been a great saving to the Association.

We instructed the Editor to make a trip through the East in the interest of the JOURNAL and secure advertising matter, which was a success. We have continued the policy of restricting all advertisements of articles of a medical type to those approved by the Council on Pharmacy and Chemistry, and have very carefully scrutinized all other advertisements to be sure that no unethical matter has come before the profession as being indorsed by the official JOURNAL of the State Association.

In January of this year the JOURNAL added a new department on "The Truth About Medicines." In this department are presented short and clear exposures of the frauds and fakes attempted to be palmed off on the profession and the public, and a description of new remedies found to be reliable and useful and approved by the Council on Pharmacy and Chemistry. We consider this department most instructive and enlightening. In it members will be informed of many things concerning medicines and near-medicines that they cannot learn elsewhere and we appeal to every member to read this department every month.

We have made a special point of printing papers read before the various county societies, and of publishing the proceedings of all county and district societies, whose membership is in strict accord with the objects of the Association, as well as publishing all proceedings of the State Association and the various papers read at the last annual meeting. It has been the policy of the committee and the editor of the JOURNAL to publish all important news in the state that is of special interest to the members of the State Association and to supply the needs of the profession at large, with a wide-awake, up-to-date, strictly ethical journal. If the members of the Association will write to advertisers and patronize firms who advertise in the JOURNAL, you will naturally assist your committee and editor in making the JOURNAL just what it should be and what we hope to have it before another year is past, the best up-to-date JOURNAL of any of the State Associations.

There is no question but that the high standard set by the state journals for ethical advertising has exerted a great influence for good all over the country. Many advertisers have sought space in our columns and the chairman of your committee has received many letters asking for space and tempting us with flattering offers of pecuniary gain if we will only publish their ads, telling us at the same time of the various other supposedly ethical journals that are using their material, and sending us circulars showing us the prominent members of the medical profession who sanction or extol their wares; to all of which we had only one reply: "We can neither be bribed with gold nor tempted with flattery."

There is one important fact to which we desire to call your attention and that is this: If the quack, charlatan and unprofessional advertisers are ever driven out of the medical profession in this state it must be done by the united and untainted support of the organized profession through its official JOURNAL which goes to the members in every hamlet in the state; and no member of this Association can afford to lend his aid or comfort to any questionable advertising or write any articles for any journal that permits such advertising in its columns. For unethical journals, like unprofessional doctors, are watching like vultures to grasp the slightest morsel and publish it to the world. This fact, as many of you know, has been very forcibly demonstrated during the past year by certain medical journals sending out circulars soliciting subscribers on the strength of articles being contributed by men high up in the councils of the American Medical Association, and at the same time and possibly in the same issue of said journal, they will be carrying advertisements of nostrums and editorials derogatory of the American Medical Association.

In the eleven issues of the JOURNAL, from July, 1911, to May, 1912, inclusive, the JOURNAL has published eighty-nine original articles, and sixty-five editorial items, besides a large amount of miscellaneous matter and reports of meetings of county societies. The books received by the JOURNAL for review have been distributed among the medical libraries as follows: St. Louis Medical Library, 25; Greene County Medical Society Library, 38; Jasper County Medical Society Library, 35; Editor's office, 9; total 108.

We take special pleasure in stating that the past year has been more prosperous than any previous year and with your help and support the next year will be better. The JOURNAL is exerting a very large influence in the organization and the members watch for its arrival at their offices. We have received quite a number of letters of commendation for the excellent and agreeable style in which the JOURNAL is put out, for its freedom from errors in composition and for the high class advertisements. We urge the members to continue supporting the JOURNAL, for it is not possible to succeed in this undertaking unless the members themselves will give the committee and the editor their loyal support and personal influence.

The cost of publication and the income are as follows:

Advertising receipts, May 1, 1911, to April 30, 1912, sent Dr. Welch	\$2,483.30
By accounts receivable	274.51
Total	\$2,757.81
To expenses of printing and mailing 12 issues	\$2,630.11

Balance

Respectfully submitted,

W. H. BREUER, Chairman,

A. W. MCALESTER, JR.,

M. A. BLISS,

The Committee.

REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION

The Committee on Public Policy and Legislation has very little that is new to report. The chief points in the legislative work of this committee in 1909 were, the defeat of the bill to legalize optometry, and other vicious medical legislation, and the passage of but one bill, viz.: providing for counties and groups of counties to establish district tuberculosis hospitals for patients in all stages of the disease.

Although some of the bills that failed to pass should not have passed under any circumstances, there were others that would have been of a marked beneficial character, particularly the bill to regulate expert testimony. It is hoped, and there is reason to hope, that by the time of the next meeting of the Legislature, a comprehensive bill will have been prepared. Another bill was one to increase the powers of the State Board of Health. No doubt this legislation will occur when the unreasonable antagonism against it has been overcome.

By the action of the State Insurance Superintendent more or less friction has been caused. He has ruled that it is against public policy to allow insurance companies to insure physicians and surgeons against indemnity for damages contending that insurance tended to make the doctor indifferent and careless in his treatment of patients; in other words, there is no objection to the insurance of a "defense contract which is not in the nature of a policy but a contract."

The secret division of fees is lately looming up, not only before the profession but the public, and some action should be taken thereon.

Vaccination has been and still is a very popular topic for the "antis" to rave over and considerable pub-

lie discussion of the efficacy of this measure has been rife in St. Louis during the past few months, due to enforcement of the compulsory vaccination rule of the Board of Education. Several suits have been instituted against the board to compel it to accept unvaccinated children and children vaccinated by other than the Jennerian method, especially by "internal" vaccination as advocated by certain practitioners of medicine. The mandamus suit has been decided in favor of the Board of Education; the other suits are pending. Several outbreaks of smallpox have resulted from the negligence induced by the arguments of antivaccinationists.

The Supreme Court of Missouri has defined what constitutes practicing medicine under the law. The Court said "The practice of medicine is not confined to the administration of drugs; nor is surgery limited to the knife. When a physician advises his patient to travel for his health he is practicing medicine. Broadly speaking one is practicing medicine when he visits his patient, examines him, determines the nature of the disease and prescribes the remedy he deems appropriate."

There can be no doubt to a thinking people that the outlook for sane and honest medicine is gloomy not only in Missouri but everywhere. Still the profession must not close its eyes to its own shortcomings which are partly responsible for much of the antagonism. It is time to put our house in order. This is not the place nor time to go into details, but in every conflict to better humanity and improve mankind there has been and always will be blind opposition.

The question has been asked by many, would it not be just as well to let the fools have at each other and allow the law of the survival of the fittest to reign supreme? Would it not be well to allow the quack to practice but without any legal recognition or title, as is done in some European countries? Then anyone who employed such persons would have full knowledge of their incompetency. We must not allow the public to harbor the erroneous idea that the medical profession is a trust without protesting, and by our actions prove that it is not.

The resignation of Dr. Harvey W. Wiley from the Bureau of Chemistry at Washington, is a national misfortune and this Association should place itself upon record in an appropriate manner in expressing its regrets.

The chairman of the committee owing to illness was unable to attend the Eighth National Legislative Council of the American Medical Association at Chicago, February 26-27. Dr. Goodwin, who attended the meeting, kindly read the report of the committee. The committee recommended that the Council on Health and Public Instruction collect statistics on vaccination in this country. This recommendation was adopted by the council.

Your committee has begun a campaign of education of the people of the state through the publication in county newspapers of articles on hygiene and preventive medicine. The newspapers in the accompanying tables expressed their willingness to use the articles issued by us in the name of the Association and have published the articles sent to them. The following samples give an idea of the character and scope of these articles:

THE HOUSE-FLY

It has been proven many times over, through experiments conducted for that purpose, that the fly is one of the most active carriers of disease that exists.

The fly is absolutely filthy. It lays its eggs in any filth it can find, preferring the most objectionable such as manure, excreta, and decayed food, and from nurseries like these it pays free and frequent visits to our kitchens, dining-tables, food supplies and stores. The unprotected out-house is a favorite loafing and breeding place for the fly. From such centers its visits reach to every accessible quarter, and there is prac-

tically no contagious disease that the fly cannot and does not spread.

The generous use of screens is the one method of combating this pernicious pest, which, if generally adopted, would result in practically eliminating the fly as a menace.

Screen the manure piles; the heat generated by the decomposition of this material acts favorably in hatching the fly eggs, and the manure pile is the great fly incubator which it chooses almost entirely. Screen the out-houses; and keep the flies away from the excreta which often contains the germs of such diseases as typhoid fever and dysentery long before the patient knows he has the disease. The fly can carry these living germs a long time and deposit them anywhere he chances to alight without impairing the activities of the germ in the least.

Keep garbage repositories securely covered and do not permit quantities of refuse matter to accumulate or remain unprotected by screens.

Screen the dwelling house with greater care, and use food-screens to protect exposed quantities of food-stuffs.

Care should be taken to screen off the room containing patients suffering from typhoid fever as they may become a source of infection to the community through the activities of the fly.—*Missouri State Medical Association.*

MEDICAL INSPECTION OF SCHOOL CHILDREN

The United States is away behind the rest of the civilized world in regard to the medical inspection of school children.

The life of the child from the seventh to the fourteenth year is known as the "growing period," and is an especially critical period of child-life that should be particularly guarded.

There are many affections of the child that escape the observation of parents, and unless corrected they may result in serious consequences to the child in later life. Many of the contagious diseases which are common to childhood, such as measles, diphtheria, etc., are absolutely unnecessary and can be prevented, thus saving much suffering, time, and money.

Particular attention should be given to the condition of the eyes, ears, nose, throat and teeth of children, and even to the general nervous system. Abnormal conditions in children frequently call for special dispensations from the teacher in order that the pupil may get the most out of his studies, but unless the teacher is made aware of the physical condition of each particular child these favorable situations cannot be established, and it is only fair to the child and the teacher to make it possible for the teacher to understand the child and his special needs.

The protection of the community, the promotion of school-life efficiency, and the preservation of the lives of the children is a duty that should not be shirked, and the creation of a systematic medical oversight of school children by the state is the only way in which that duty can be fulfilled.—*Missouri State Medical Association.*

SMALLPOX AND VACCINATION

Smallpox was at one time the most dreaded of all diseases; 50,000,000 persons died of smallpox in Europe during the 18th century. But to-day, owing to the extensive and faithful use of vaccination, smallpox has lost its terrors and people no longer regard the disease seriously. Do not forget that the comparative harmlessness of smallpox is due entirely to vaccination and not to the disappearance of smallpox as a disease. Were vaccination to be abandoned to any extent smallpox would again assume its dread proportions. This has been proved many times by the outbreaks of the disease in localities where a false

feeling of security had led to abandonment of vaccination by the people.

It is a mistake to think that dirt has anything to do with causing smallpox. The disease is caused by a germ that must come from a previous case, and the most cleanly person, if exposed to the disease, is liable to contract it, unless he has been vaccinated.

In 1786 Dr. Jenner found that a disease greatly resembling smallpox existed in the cow, and that if the matter from one of the sores was introduced into a person the disease that resulted was a mild form of smallpox and served to protect the person having it against smallpox. This is the great principle of vaccination, which is the only known safeguard against smallpox.

The protection afforded against smallpox by vaccination usually lasts from two to seven years, after which time it is generally too weak to give much security. Therefore revaccination should be made within that time. If one is much exposed to the disease revaccination should be made within two or three years from the time of the last inoculation.

Whenever any serious inconvenience or illness results from vaccination it is due to impure vaccine matter, or lack of cleanliness on the part of the person vaccinated. Only vaccine that is put up by laboratories that are licensed by the government should be used, as this vaccine is free from injurious impurities. The sore must be kept from being infected with dirt or irritation by the garments and will disappear in about two weeks.—*Missouri State Medical Association.*

TYPHOID FEVER

Suppose a city of 35,000 inhabitants had been wiped out in this country last year by a plague which a little care would have prevented? Would not the public mind be greatly excited over the calamity, and the persons responsible for the disaster severely condemned? Yet practically just that thing happens year after year in the United States. Thirty-five thousand people die yearly in this country from typhoid fever and the public is responsible for these deaths because typhoid fever is a preventable disease.

The disease is carried from person to person by the germs which are discharged from the bladder and bowel of the patient, and these germs are spread in the community long before the patient even knows he is sick. Therefore it is necessary to regard all human excreta as dangerous. The use of the common "open surface" out-house is responsible for most of the cases of typhoid fever because the excreta pollutes the ground, drains away by natural seepage to contaminate wells and ponds, and contaminates flies and insects who readily spread the disease to all parts of the community.

The practice of burying the excreta is likewise a source of infection and should not be followed. It is much better to burn the excreta. The offensive material is seldom buried deep enough or far enough away from water supplies to be safe.

Milk is still another source of danger. Typhoid fever germs grow faster in milk than in any other article of food, therefore it is necessary to exercise precautions in handling milk, butter, and all dairy products.

Using fresh excreta as fertilizer is a disgusting and dangerous practice. The liability of contracting the disease extends to every person who handles and consumes the vegetables from a farm where such fertilizer is employed. If the excreta is used as fertilizer it should first be heated to 212 degrees Fahrenheit.

The following precautions should be taken in order to prevent the spread of typhoid fever. (1) Construct sanitary out-houses that will protect the excreta from outside contact and prevent it from touching the ground. (2) Dispose of excreta by burning it. (3) Keep all filth and pollution away from wells, ponds and streams. (4) Screen garden truck and fruit

against flies. (5) Do your part in trying to get rid of flies, which are more active than any other insect in causing the spread of disease, by making it impossible for them to multiply. This can be done by removing the filth and garbage from stables, screening manure pits, and removing the contents of the manure pits at least once a week.—*Missouri State Medical Association.*

One hundred and fifteen articles of this kind have been sent to the list of newspapers during the past five months. The tables show the distribution of the articles and the newspapers to which they were sent:

TITLES OF ARTICLES SENT TO NEWSPAPERS BY THE COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Democrat, Kirksville, Adair Co.: "Diphtheria. Clothing. Cleanliness. House-fly. Diseases of Children."

Republican, Poplar Bluff, Butler Co.: "Sanitary Out-houses. Drainage. Typhoid Fever."

Reveille, Linn Creek, Camden Co.: "Medical Inspection of School Children. Clothing. Cleanliness."

Cash Book, Jackson, Cape Girardeau Co.: "Typhoid Fever. Drainage. Diseases of Children."

Current Local, Van Buren, Carter Co.: "Diphtheria. Water Filters. School-Room Hygiene. Exercise. Clean Milk."

Leader, Craig, Crawford Co.: "Fruit as Food. Cleanliness. Storm Water. Drainage. Dangers of Dust."

Press-Spectator, Salisbury, Chariton Co.: "Mouth-Breathing. Cleanliness. The House-fly. Water Filters. Dangers of Dust."

Record, Carrollton, Carroll Co.: "Typhoid Fever. Sunlight. Care of the Teeth."

Headlight, Union, Franklin Co.: "Smallpox and Vaccination. Sanitary Out-houses. Sunlight. Clean Milk. Cleanliness."

Republican, Owensville, Gasconade Co.: "Bathing. School-Room Hygiene. Medical Inspection of School Children."

Leader, Fayette, Howard Co.: "Typhoid Fever. Bathing. Ventilation. Clothing. Mosquitoes. Diseases of Children."

Journal, West Plains, Howell Co.: "Mouth-Breathing. Dangers of Dust. Mosquitoes. Cleanliness."

Gazette, West Plains, Howell Co.: "Typhoid Fever. Sunlight. Bathing. The House-fly."

Sentinel, Oregon, Holt Co.: "Sanitary Out-houses. Drainage. Typhoid Fever. Dangers of Dust."

Gazette, Brookfield, Linn Co.: "Sanitary Out-houses. Exercise. Mosquitoes. Diseases of Children."

Constitution, Chillicothe, Livingston Co.: "Storm Water Drainage. Mouth Breathing. Dangers of Dust. Cleanliness."

Eagle, East Prairie, Mississippi Co.: "Bathing. Mouth-Breathing. Medical Inspection of School Children. Dangers of Dust."

Home Adviser, Vienna, Maries Co.: "Ventilation. Sleep. Bathing. Exercise."

Tribune, Maryville, Nodaway Co.: "Sleep. Exercise. Clothing. Smallpox and Vaccination. Mosquitoes. Diseases of Children."

Unterrified Democrat, Linn, Osage Co.: "Fruit as Food. Sunlight. Storm Water Drainage. The House-fly."

Democrat, Dearborn, Platte Co.: "Typhoid Fever. Exercise. Care of the Teeth. Clean Milk. School-Room Hygiene."

New Era, Rolla, Phelps Co.: "Exercise. Bathing. Sunlight. Medical Inspection of School Children."

Times, Rolla, Phelps Co.: "Typhoid Fever. Drainage. Clothing."

Herald, Bolivar, Polk Co.: "Sanitary Out-houses. Bathing. Care of the Teeth."

Republican, Unionville, Putnam Co.: "Diphtheria. Drainage. Sleep. Mosquitoes. Clean Milk."

Vindicator, Bloomfield, Stoddard Co.: "Sanitary Out-houses. Cleanliness. Smallpox and Vaccination."

Southwest Mail, Nevada, Vernon Co.: "Sanitary Out-houses. Clothing. The House-fly. Diseases of Children."

Journal, Greenville, Wayne Co.: "Fruit as Food. Clothing. Storm Water Drainage. The House-fly. Dangers of Dust."

NEWSPAPERS WHICH SENT CLIPPINGS OF ARTICLES PUBLISHED. OTHER NEWSPAPERS DOUBTLESS PUBLISHED ARTICLES BUT DID NOT SEND CLIPPINGS

Smallpox and Vaccination; *Vindicator*, Bloomfield. Exercise; *New Era*, Rolla. Typhoid Fever; *Record*, Carrollton. Clothing; *Democrat*, Kirksville. Medical Inspection of School Children; *Republican*, Owensville; *New Era*, Rolla; *Headlight*, Union. Sleep; *Home Adviser*, Vienna. Bathing; *New Era*, Rolla. Diphtheria; *Current Local*, Van Buren. Cleanliness; *Democrat*, Kirksville. Clean Milk; *Home Adviser*, Vienna; *Current Local*, Van Buren; *Headlight*, Union; *Republican*, Owensville. Dangers of Dust; *Journal*, West Plains; *Eagle*, East Prairie.

The House-fly; *Democrat*, Kirksville.

Mosquitoes; *Reveille*, Linn Creek.

Diseases of Children, *Democrat*, Kirksville.

If this Press Bureau be approved by the House of Delegates we recommend an extension of the service by enlisting the assistance of the component societies. We suggest that the member of the auxiliary legislative committee from each component society should be added to this committee and cooperate by securing the consent of the editors of one or two newspapers in the county to publish these articles; and to suggest topics of items that would be most appropriate for his district.

Respectfully submitted.

R. M. FUNKHOUSER, Chairman.

JABEZ N. JACKSON.

A. R. MCCOMAS.

The Committee.

REPORT OF COMMITTEE FOR PUBLIC HEALTH EDUCATION AMONG WOMEN

Dr. Dora Greene-Wilson read the following report: Public health educational work has been organized, and is going on in 45 states under the Public Health Educational Committee of the A. M. A. Council of Health and Public Instruction.

Since the organization of this work in 1909, more than 5,000 lectures have been given to audiences aggregating 400,000 persons. This report was given at Los Angeles a year ago, and the work has been much more active during the last year than in the former two years.

This committee is composed of a central committee of nine persons, from widely different parts of the U. S., forty-five state chairmen, 238 county secretaries, besides assistant secretaries, and members of the subcommittee.

All are members of the A. M. A. and serve gratuitously. There are over three hundred officers, and with each six or seven others are associated, making a total of 1,800 members of the A. M. A. who during the

last three years have, as a definite piece of work, organized and carried on this campaign of public health education. Each state serving in this work, has a state chairman, who appoints county chairmen and secretaries. These county officers endeavor to have appointed in each county society a public health education committee, of which the A. M. A. officer is chairman; so that by this cooperation, the work may all be kept in the hands of our own members; and it seems that this is ethically the right way. Great success has attended the work where this kind of organization has taken place.

Missouri has been somewhat derelict but I feel sure it is not because of a lack of interest but because the matter has not been presented for consideration by the A. M. A. until the present time.

St. Louis has done a considerable amount of very creditable work, and Kansas City has done some; but as a state society organization, it has not been taken up.

Work, as follows, has been done from the office of the state chairman. A letter has been written to the secretary or president of each county medical society in the state, asking that the society appoint a committee on public health education whose function it will be to arrange for public lectures to be given by members in good standing and especially qualified to do so.

Then a letter has been written to each federated woman's club in the counties, and many other organizations, enclosing a list of topics for lectures that have proven especially successful and popular, and asking that a hygiene committee be appointed to select from these subjects, and arrange with their own county medical society for lectures.

In this way, we have endeavored to get the county societies interested and to work, and at the same time supply an appreciative and intelligent audience.

Thus has the work of the public health education committee of A. M. A. been fairly well initiated through the state and has met with encouraging response.

Now, if the state takes the matter up through a committee, the machinery will be supplied by which excellent work may be done, and our state brought up and made to rank with other progressive states.

The criticism is constantly made that the medical profession does less than any other class of people in the present world-wide evolution for a higher standard of physical and social life. This is not true. Colleges, settlements, churches, Y. M. C. A., Y. W. C. A., antituberculosis leagues, child hygiene and all other movements of the last thirty years, have been accredited to the laity whereas as a matter of fact, physicians are the most active and effective workers in all these and many other lines of constructive activity. But our work has been done independently—and it seems important that we should organize, and keep carefully tabulated reports of work done both because we will do better work, and have credit for the same—that we be properly registered, as it were.

I am sure that this organization is ready to take up this important work officially—a work that has been greatly dignified, and whose importance the A. M. A. is trying hard to emphasize. It is of such significance that we can scarcely afford not to be properly identified with it. It is naturally expected of the profession that it take the lead and direct it in the proper channels—in fact the public demands the information and instruction, and if we do not do it those who will use the opportunity for self aggrandizement and who are not representative of our great profession will seize it.

As this work grows in every community it will be recognized as a great medical philanthropy, and will put our organization in position of being of the greatest service to humanity, by placing before the people the knowledge that insures health, and thereby increases their personal happiness and raises the standard of their efficiency to the community.

REPORT OF COMMITTEE ON TRACHOMA INVESTIGATION

THE PREVALENCE OF TRACHOMA IN MISSOURI

The Committee on Trachoma Investigation was created by resolution of the Medical Section at the last annual meeting for the purpose of investigating the prevalence of trachoma in the State of Missouri. The resolution did not carry any appropriation for the work.

The original intention of the committee was to submit a questionnaire on trachoma to every member of the State Association (about 2,800 physicians), but this idea was abandoned on account of the expense. The committee then determined to request the cooperation of the oculist members, believing that, inasmuch as nearly all cases of trachoma sooner or later come under the observation of an oculist, information secured from the oculist members would furnish a fairly accurate survey of the trachoma situation in the state. A list of oculists furnished by the secretaries of the county societies four years ago at the time of the formation of the Eye, Ear, Nose and Throat Section, with a few additional names secured through the Eye, Ear, Nose and Throat Section of the Jackson County Medical Society, and the Ophthalmic Section of the St. Louis Medical Society, supplied the committee with the names of 157 physicians practising ophthalmology exclusively or in part. It is probable that a number of oculists not practising at the time the list was prepared by the county secretaries did not receive the questionnaire. This omission is to be regretted, but was unavoidable under the circumstances.

A circular letter outlining the problem and asking cooperation was sent to each of the 157 oculists on our list. On the reverse of this letter were questions relating to the prevalence of Trachoma, its effect on vision, its familiar character, the occurrence of epidemics, the attitude of boards of education to trachoma in the schools, the attitude of hospitals in relation to beds or a ward for trachoma patients, popular ideas in regard to this disease and precautions taken to prevent its spread. In all 75 replies were received. For the sake of clearness each question with a synopsis of the replies are presented together.

Question 1: In your locality is Trachoma very common? Common? Exceptional? Rare? Entirely absent?

Seventy-two replies were received distributed as follows: "Very common" 9; "Common" 28; "Exceptional" 19; "Rare" 14; "Entirely absent" 2. We may assume, therefore, that in 37 localities (9 "very common" plus 28 "common") the disease is sufficiently frequent to be regarded as endemic. *Per contra*, in 35 localities (19 "exceptional," 14 "rare," and 2 "absent") the disease is probably sporadic and hence of little importance from the standpoint of the community.

Question 2: Has the number of cases of Trachoma coming under your observation during the past three years (1909-10-11) been greater or less than the number observed by you during the preceding three years (1906-7-8)?

Sixty-five replies were received. Twenty-two physicians had seen a greater number and twenty-eight a fewer number of cases in the past three years as compared with the preceding three years. Fifteen were of the opinion that the number had neither increased nor decreased. We must conclude, therefore, that so far as the entire state is concerned, the evidence points neither to an increase nor a decrease in the total number of cases of trachoma.

Question 3: Can you state the number of cases you have observed in the past twelve months, January, 1911, to January, 1912? (If you cannot give exact number give approximately the number of cases.)

Sixty replies were received. The estimates ranged all the way from 0 to 175 totaling 1,875, an average of

31 cases per doctor. Whenever the reply was somewhat indefinite, e. g., "from 20 to 30 cases," a number midway between the two was presumed to be a fairly accurate estimate and was so recorded. Assuming that the 31 average would have been maintained if replies had been received from all the 157 oculists, we should have a total of 4,867 cases under treatment by the oculist members during 1911. Does 4,867 represent the number of cases of Trachoma in the State of Missouri? In the opinion of the committee this number does not begin to show the total number of trachomatous individuals in our state. When we consider the large numbers affected with this disease who never come under the observation either of a specialist or of a general practitioner, others who have received occasional treatment only at the hands of the family physician, others who have been glanced at by the traveling oculist and other irregulars, those who have sought the advice of the optician and been burdened with a pair of unnecessary glasses, we must conclude that there exist at least 5,000 more cases than are indicated by the present report. We believe therefore, that, conservatively estimated, 10,000 people in the State of Missouri are suffering from early and late trachoma and its sequelae.

Question 4: Do you know of any individuals with vision seriously impaired as a result of trachoma? (Able to go about but unable to earn a livelihood?)

Of the 70 replies received, 48 were in the affirmative and 22 in the negative. The large excess of affirmative replies is confirmatory of the well known fact that neglected trachoma is very damaging to vision. It should also be borne in mind that owing to the qualification of the question by the parenthetical clause (see above), those who replied listed only individuals whose economic status as a result of their ocular disease was little, if any, removed from pauperism.

Question 5: Do you know of any individuals blind in both eyes as a direct or indirect result of trachoma?

Of the 70 replies, 24 were in the affirmative and 46 in the negative. Twelve of the affirmative answers were unqualified and 12 were qualified by such statements as "a number relatively blind," "Not entirely blind," "Not totally blind," "Some very nearly blind." Each of three oculists know of two people totally blind from trachoma.

Question 6: Do you know of any household in which two or more members are afflicted with this disease?

Sixty-nine replies, of which 46 were in the affirmative and 23 in the negative. The familiar character of this affection is well illustrated by some of the particulars furnished, e. g., "Several instances where from two to three in the family have the disease." "A father, son and daughter are afflicted." "Three children and the mother." "Five children in one family." "Three out of four in one family." "Three generations suffered from trachoma." In one family the disease existed twenty years. Dr. C. K. Dutton, of Moberly, reports 16 cases in a single household.

Question 7: Do you know of any epidemics of this disease occurring within the last five years in schools, barracks, prisons, houses of detention, construction camps, lodging houses, poor farms, institutions, etc.?

Seventy-two replies were received of which 64 were in the negative and 8 in the affirmative. It is worthy of note that with one exception these epidemics occurred in institutions where large numbers of children were housed and where, in consequence, the opportunity for the conveyance of infectious material by the commonly used wash-basin, towel, wash-rag, handkerchief, pillow-slip, etc., was ever present. Epidemics are described at the St. Louis Industrial School (C. Loeb and others), St. Louis Methodist Episcopal Orphans' Home (F. E. Woodruff), St. Louis Orphans' Asylum (Wm. F. Hardy), German Protestant Orphans' Home, 40 cases among 230 inmates (J. G. Calhoun), Orphan Asylum (C. Berek), Boys' School in Kansas City (J. W. Sherer), Children's Home in Kansas City (J. H.

Thompson) and the Ashcroft School, 6 miles south of Poplar Bluff (F. W. Seybold).

Question 8: Does your Board of Education exclude from the schools children with chronic sore eyes?

Forty-nine replies of which 31 in the negative and 18 in the affirmative. It appears that a number of school boards recognize acute conjunctivitis as a proper cause for debarring children from the schools, but permit those with chronic sore eyes to attend without let or hindrance. Some of our oculists have informed the boards of education in their respective towns of the great danger from this disease once it gains a foothold in the school, but, as a rule, they have not met with a sympathetic hearing and the board members have not been willing to comply with the physicians' suggestions. Those towns and cities in which an enlightened school board has issued orders to debar from the schools children suffering from trachoma are (as far as the committee's information goes) Fayette, Moberly, Salisbury, Excelsior Springs, Clinton, Columbia, Osceola, Poplar Bluff, Kansas City, St. Louis, Hannibal, Memphis, St. Joseph, Caruthersville, Richmond, Brunswick, Dixon and Warrensburg.

Question 9: Does any hospital in your locality devote beds or a ward to trachoma and other contagious eye diseases?

Sixty-nine replies of which 66 were negative and 3 affirmative. Dr. A. W. McAlester has a bed for trachoma and other contagious eye diseases in the Kansas City Hospital. St. Joseph Hospital, Kansas City, and the General Hospital at Columbia admit patients with trachoma but have no special beds or wards devoted to the victims of this malady.

Question 10: Do the people in your locality realize the serious nature of trachoma?

Seventy replies of which 55 were negative and 15 affirmative.

Many colleagues gave brief explanations elucidating a negative or affirmative reply. Some of these with throw light on the popular attitude toward this miserable scourge are here recorded: Dr. Farnsworth, of Springfield, thinks that "in the country people pay little attention to it until the cases get so bad they cannot work." Dr. Minton, St. Joseph, believes the people "need education." Dr. Kimberlin, Kansas City, has found that "blepharitis or any other chronic congestion of the lids goes by the name of granulated lids," a fact which may, in part, account for the widespread indifference. Dr. Wever, Kansas City, states that many victims of trachoma assert that "their eyes are weak and regard the disease as no more dangerous than dandruff." Dr. Shotwell, of Richmond, believes "that the people have been educated along this line the past ten years," to which fact he ascribes the lessened incidence of the disease in his locality. A valuable publicity hint comes from Fayette, where the public library has undertaken the task of disseminating information in regard to trachoma by issuing books and pamphlets bearing on this subject.

Question 11: What precautions do you take in cases in private practice?

There is a general agreement as to the necessity of isolation (difficult to enforce), the use of individual wash basins, soap, wash-rags, handkerchiefs, etc. Parents are warned not to permit a trachomatous child to sleep in the same bed with an unaffected person. Some physicians insist on separate eating utensils for the patient. Others insist that the trachomatous child shall have its own playthings which are never to be touched by playmates (doubtless an injunction difficult to enforce). Many lay special stress on the contagiousness of the disease and not content with merely informing the patient and his family of this fact, conduct periodic eye examinations of other members of the family who are not in the first instance affected.

The problem of the trachomatous child is a serious one. In default of special provision it is only fair that

the child should be returned to school as soon as possible. As the period of contagiousness is practically coincident with the period of discharge, some physicians insist that these children shall not return to school until all discharge had been checked. In the opinion of others a separate room should be reserved for these sufferers in school districts where the disease is at all prevalent. One oculist believes that contagion is often conveyed by handshaking. One extremely careful practitioner keeps in his office individual bottles, droppers, crystals of copper sulphate, etc., for each case of trachoma under treatment. Several insist on a careful correction of the refraction and the constant wearing of appropriate lenses.

Under the head of "Remarks" many interesting observations were made. The limitation of this report prevents the recital of more than a few.

Dr. A. E. Derwent, Clinton, believes that "the advice given teachers and children about discharging eyes, has, to a great extent eliminated trachoma in Clinton. Five years ago the disease was much more prevalent." Dr. W. H. Minton, St. Joseph, is of the opinion that "parents who are chronically affected at the time of marriage seldom infect their children." Dr. A. McMichael, Rockport, reports that his trachoma patients are "in general affected with a mild type of the disease," and this is also the experience of Dr. A. Alt, of St. Louis, who states that "the character of the disease is not as virulent as it used to be." Dr. E. W. Sullivan, Osceola, finds many cases of chronic conjunctivitis which have been self-diagnosed as "granulated lids." Dr. C. A. Moore, Ash Grove, finds the "greater part of trachoma patients come from districts in the hill country where people do their own prescribing and know little of methods of preventing disease." Dr. W. B. Post, Carthage, has "numbers of cases from the Ozarks or hill regions" south of his city. Dr. Chas. B. Shotwell, Richmond, "rarely sees a case of trachoma, where ten years ago he frequently encountered entire families with the disease." Dr. John D. Seba, Bland, states that in his locality "many people live in huts, with old time fireplaces that draw all the smoke into the house. Whole families are sore-eyed, with lashes rubbing the eyeballs."

Indicative of the prevalence of trachoma among the dispensary class of children are statistics of the St. Louis Children's Hospital Eye Clinic furnished by Dr. J. W. Charles. Of 915 new eye cases at the Children's Hospital from Feb. 1, 1910, to April 1, 1912, there were 105 cases of trachoma or one in nine. Dr. C. M. Sneed, Jefferson City, in an examination of 1,066 school children found 83 trachomatous or trachoma suspects. Dr. Sneed's inspection of 800 school children in Fulton showed 16 trachomas.

Many oculists will concur in the views of Dr. D. C. Adeock, of Warrensburg, who writes to the committee as follows: "My experience with trachoma is largely in the second or third stage after the average general practitioner has made a 'mess of it'. Here the general practitioner attempts everything and does not, on occasion, impress on the patient with trachoma the real seriousness of his affliction. By the time the consequences of the malady are made manifest the patient has unwittingly infected his whole family and allowed his own case to develop corneal opacities with the subsequent scars or entropion, or both. My experience is that careful and constant attention will, in a large majority of these cases, be of inestimable value and will prevent the patient traveling to the specialist to receive an unfavorable prognosis. I would impress on the practitioner the importance of early and strenuous and constant endeavor toward the cure of his malady."

In order to gain some insight into the distribution of trachoma throughout the state, the committee has arbitrarily divided the state into four sections which, for convenience sake, have been called sections 1, 2, 3 and 4.

Section (1) or "Northwestern" includes all territory north of the Missouri River and west of the western boundaries of Chariton, Linn, Sullivan, and Putnam counties. Section (2) "Northeastern" includes territory north of the Missouri River and east of the western boundaries of the counties named in Section 1. Section (3) "Southwestern" includes all territory south of the Missouri River and west of the western boundaries of Howell, Texas, Pulaski, Miller and Cole counties. Section (4) "Southeastern" includes all territory south of the Missouri River and east of the western boundaries of the counties named in Section 3.

In Section 1: Northwestern—Atchison, Nodaway, Livingston, Clay and Ray counties report the disease as exceptional or rare. Three reports from St. Joseph (Buchanan Co.) are unanimous in the assertion that the disease there is very common.

In Section 2: Northeastern—Scotland, Linn, Macon, Chariton, and Howard are the counties in which the disease is reported as exceptional or rare. Hannibal (Marion Co.), Moberly (Randolph Co.), and Columbia (Boone Co.) report the disease as moderately prevalent.

In Section 3: Southwestern—Fayette, Henry and Jasper counties report the disease as exceptional or rare. Johnson, St. Clair, Webster and Greene counties report the disease as common. In Jackson county there is a division of opinion. Ten oculists believe the trouble to be exceptional or rare, five regard it as common.

It is to be regretted that no reports have been received from the counties contiguous to the northern counties of Arkansas, inasmuch as it is these counties that supply the greatest number of cases of blindness from trachoma to the Arkansas School for the Blind.

In Section 4: Southwestern—Cole, Gasconade, Phelps, Cape Girardeau, Wayne, Butler, Pemiscott are the counties which report the disease common or very common. Pulaski, Dent and Ste. Genevieve report it as rare.

Of the 12 reports from oculists of the City of St. Louis, 9 regard the disease as very common or common, and only 3 consider it exceptional.

As far as can be ascertained no Board of Health anywhere in the State requires the reporting of trachoma despite the fact that everywhere the disease is recognized as communicable. The health officers of Joplin, Springfield, Hannibal, St. Louis and Kansas City have given definite information by letter that trachoma is not reportable in any of the named cities. Under date of Oct. 14, 1911, Dr. W. S. Wheeler, Health Commissioner of Kansas City, writes that he is "revising the reportable diseases to include trachoma, infantile paralysis, spinal meningitis and erysipelas." It is to be hoped that his recommendation has been adopted by the Kansas City Board of Health.

Recent investigations by government trachoma experts in Oklahoma have revealed an appalling prevalence of the disease in that state. An examination of 751 pupils in five Indian Schools showed that 581 were affected with this disease. Dr. D. W. White, U. S. Government trachoma expert, found that 48 per cent. of the white children in the Pawnee public schools were affected and his examination in other white schools throughout the state justify his assertion that from 20 per cent. to 40 per cent. of all the white school children of Oklahoma are trachomatous. And yet the general medical fraternity is giving scant consideration to this most serious menace to the eyesight of the community.

Will Missouri assume an attitude of indifference and permit similar conditions to develop?

CONCLUSIONS

1. There are many widely scattered localities in Missouri where trachoma is a common disease; per contra, there are just as many localities where it is rarely met with.

2. The evidence as to the increase or diminution of the disease in recent years is not conclusive. It seems probable that no notable change in the incidence of the disease has taken place recently.

3. There are probably not less than 10,000 cases of the disease in the state, probably many more.

4. Countless eyes have been rendered valueless for all but coarse vision. In consequence their possessors have been reduced to an economic inefficiency bordering on pauperism.

5. There are probably 100 Missourians blind from trachoma or its complications or sequelæ.

6. The tendency of the disease to extend to every member of a household from a single infected individual is a matter of common observation.

7. Recent epidemics have been confined to Children's Institutions and Schools. They have been discovered and checked in time to prevent damage to sight.

8. Boards of education are not, as a rule, alive to the menace of trachoma in the schools. There are, however, many exceptions.

9. Hospital accommodations for those requiring operation and intensive treatment are woefully inadequate.

10. The great majority of laymen have not the faintest conception of the gravity of the disease.

The committee submits the following recommendations:

(1) Trachoma should be made a reportable disease to every local board of health.

(2) Local boards of health and health commissioners should regard trachoma with the same concern that they regard scarlet fever, diphtheria and typhoid fever. Trachoma may not be dangerous to life, but it is dangerous to that which is almost as precious as life itself—eyesight. The failure to recognize trachoma as a serious contagious disease is reprehensible.

(3) The State Board of Health which is endeavoring to secure monthly reports from county health officers concerning the prevalence of communicable diseases in the different counties, should require a tabulation of the fresh cases of trachoma.

(4) The Federal Government should provide measures for the investigation of trachoma throughout the United States and where it is found to exist measures should be taken in conjunction with the local authorities for its control.

(5) Boards of Education must be roused to a more intelligent attitude towards this disease. The opposition to medical inspection in the public schools must be abandoned if the eyes and eyesight of the coming generation are to be safeguarded.

(6) Education of the people in the true nature and possible danger of this disease by talks with the family physician, public lectures by oculists, the distribution of pamphlets and books through the local public library should be insisted upon.

(7) Special stress should be laid on the danger of contagion and the familiar character of the disease. Epidemics in institutions should be guarded against by periodic ocular inspection of all the inmates.

(8) In localities where trachoma is endemic, the hospitals should supply a few beds in a small ward for trachoma patients who require intensive treatment or operation.

(9) Practitioners in the country should equip themselves to recognize incipient trachoma and to apply the simpler medical and surgical measures for its relief. Whenever possible, the patient, even in the incipient stage, should be referred to an oenhist.

(10) Trachoma with complications, e. g., pannus, ulcer, entropion, iritis, etc., should under no circumstances be treated by any but an oculist.

JOHN GREEN, JR., Chairman. St. Louis, Mo.

GEO. E. BELLOW, Kansas City, Mo.

EDWARD T. HORNBACK, Hannibal, Mo.

Committee.

REPORT OF COMMITTEE ON NECROLOGY

It has been the aim of the committee to omit all eulogy of deceased physicians, with the single exception of Professor Paul Schweitzer, who was not a practitioner but who taught so many of us that we believed we could appropriately include his name and a word of praise without criticism.

There are many of the deceased physicians in this list of whom much could be said in a laudatory way, but to do so would have made the report too long and bulky. Our report last year met with some criticism on this ground and your committee has sought to avoid a repetition of this fault.

The report does not limit itself to members of the Association, but we have omitted mention of any unworthy practitioners:

MADISON A. ASHLEY, M.D.—Graduate from Kentucky School of Medicine in 1895; member Missouri State Medical Association and American Medical Association; member Board of Health, Excelsior Springs, Mo. Died Dec. 31, 1911, six days after an operation for appendicitis; aged 44 years.

A. B. AVERY, M.D.—Of Springfield, Mo., was stricken with apoplexy, and died in a few minutes, Jan. 18, 1912. He was 79 years of age, and he and his wife recently celebrated their golden wedding.

PAUL R. BAER, M.D.—A practitioner of St. Louis for twenty-five years. Died at Saxony, Germany, while on a visit there, accompanied by his wife. He leaves a wife and four children. All of the latter were in St. Louis at the time of their father's death. He was about 50 years of age and is said to have died of heart disease. We have no other information at our command.

FRANK W. BAILEY, M.D.—Starling Medical College, Columbus, O., 1882. Died at his home in Joplin, March 25, 1912, from paralysis; aged 52.

WILLIAM D. BARCLAY, M.D.—Hospital College of Medicine, Louisville, Ky., 1890. Member of Missouri State Medical Association; local surgeon at Odessa for C. & A. R. R. Died at his home in Odessa of pneumonia, Nov. 14, 1911; aged 42 years.

MATTHIAS ADOLPH EDWARD BORCK, M.D.—University of Maryland, 1863, also Washington University in 1874; a veteran of the Civil War; a practitioner of St. Louis since 1872. Died at his home in St. Louis, Jan. 20, 1912, from senile debility; aged 74.

JAMES M. BRIDGES, M.D.—A member of the Missouri State Medical Association. Died at his home in Joplin, December 31; aged 74.

CHESTER F. BROWN, M.D.—Graduate College of Physicians and Surgeons, Keokuk, Iowa, 1890. Member Missouri State Medical Association and Barton County Society. Died at his home in Lamar, Mo., Dec. 21, 1911, from cancer of the throat; aged 63.

WILLIAM H. BURGESSER, M.D.—Graduated Missouri Medical College, St. Louis, 1876. Died at his home in Joplin, Mo., August 23, from cerebral hemorrhage; aged 59.

CHARLES C. CLARK, M.D.—Of Kansas City, dropped dead in a street car shortly after 10 o'clock on Aug. 7, 1911. He had been a paralytic for two years, as a result of a street-car accident in Kansas City, Kan. He also had heart trouble dating from the same time; aged 58.

HORACE BRAND COLE, M.D.—Baltimore (Md.) Medical College, 1893; a member of the Missouri State Medical Association, for six years a member of the Sedalia Board of Education and staff physician of the Maywood Hospital. Died in that institution, June 3, 1911, from typhoid fever; aged 49.

LEWIS BENJAMIN CRAIG, M.D.—Of St. Charles, Mo.; a graduate of the Missouri Medical College, 1879. Died at Salem, Mo., of pneumonia; aged 58.

HENRY CLAY DALTON, M.D.—Missouri Medical College, St. Louis, 1870; a member of the American Medical Association; from 1886 to 1892 superintendent of the St. Louis City Hospital and later professor of abdominal surgery in the Marion-Sims College of Medicine; a Confederate veteran. Died in the Deaconess Hospital, St. Louis, November 3, a few hours after an operation for appendicitis; aged 64. Former associates and assistants of Dr. Dalton acted as honorary pallbearers at his funeral.

HAMILTON DE GRAW, M.D.—Albany Medical College, 1855. Died at his home in Brookfield, Mo., Feb. 1, 1912, from senile debility; aged 95.

CHARLES HENRY DIXON, M.D.—Missouri Medical College, St. Louis, 1878; of St. Louis; a member of the American Medical Association, Association of Military Surgeons of the United States, and St. Louis Obstetrical and Gynecological Society; clinical lecturer on surgery and professor of rectal surgery of the Medical Department in Washington University; consulting surgeon and chief of staff of Bethesda Hospital, and surgeon to the St. Louis City and St. Louis Female Hospitals. Died at his home, June 5, from carcinoma of the liver; aged 55.

JAMES C. B. DIXON, M.D.—Licensed in Missouri in 1884; member Missouri State Medical Association. Died at his home in West Plains, Mo., Feb. 22, 1912, from senile debility; aged 88.

GUSTAVE ETTMUELLER, M.D.—An aged and well-known physician. Died at his home in Jefferson City, Feb. 11, 1912, after an illness of several months. Dr. Gustave Ettmueller was educated at the University of Leipsic, Germany. His father was a physician and held some high rank in the German government. Dr. Ettmueller came to New York after his graduation at Leipsic, 1867. He practiced six months in New York City, went from there to Nebraska and practiced for some time. He went to Herman, Mo., in 1870 and practiced there until 1892, when he moved to Jefferson City and practiced until his death. He died at the age of 70. He was a member of the Missouri State Medical Association, Cole County, and American Medical Association, and at one time secretary of the Board of Health. He was health commissioner and city physician of Jefferson City; a member of the board of managers of the State Hospital at Fulton, and had been treasurer of the Cole County Medical Society for a number of years.

WILLIAM E. EVANS, M.D.—University of Virginia, 1868; Bellevue Hospital Medical College, N. Y., 1869. Died at his home in Boonville, Mo., Jan. 23, 1912; aged 65.

GEORGE W. FITZPATRICK, M.D.—Medical College of Ohio, 1863; a veteran of the Civil War. Died at his home in Kansas City, Mo., Feb. 1, 1912, from acute nephritis; aged 76.

BLENCOE E. FRYER, M.D., a graduate of the University of Pennsylvania, 1859, died at his home in Kansas City, date not learned. He was a member of the county and state medical associations.

JOHN RULE FRITTS, M.D.—Kentucky School of Medicine, 1875; a veteran of the Civil War. Died at his home in Mexico, Mo., Feb. 1, 1912; aged 71.

J. M. GADDY, M.D.—Of Cartersville, Mo. Died suddenly of cerebral hemorrhage while walking the street on the way to his office, Dec. 7, 1911. We have no other information concerning Dr. Gaddy.

WALTER S. GLOVER, M.D.—University of Missouri at Columbia, Mo., 1855. Died at his home in Jefferson City, Mo., Jan. 25, 1912, from senile debility; aged 79.

GEORGE DAVID GREENSLATE.—A practitioner since 1876. Died at his home in Willmathsville, Mo., July 12, from carcinoma of the liver; aged 62.

JOHN T. HANNER, M.D.—Aged 82 years. Died at his home in Cassville, Mo., Jan. 27, 1912, from senile debility, probably hastened by a fall which he received about a week previous. He was said to have been one of the most widely known and reputable citizens of Barry County. (No data regarding graduation.)

BENJAMIN R. HEMPSTEAD, M.D.—Of Cape Girardeau, Mo. Died at St. Francis Hospital in that city, Jan. 28, 1912, following an operation for appendicitis. He graduated from Missouri Medical College in St. Louis (date not given). At the time of his death, was a member of the city council. Age not given.

ISAAC N. HILL, M.D.—A practitioner in Missouri for 70 years. Died at his home in Harwood, Mo., Oct. 28, 1911; aged 92.

ALONZO D. HILL, M.D.—Miami Medical College, Cincinnati, 1866; assistant surgeon in Confederate service throughout the Civil War, and since that time a practitioner at Dexter, Mo. Died suddenly at his home March 24, 1912; aged 75. Dr. Hill was a brother of the late U. S. Senator, David Bennett Hill, of N. Y.

E. W. JOHNSON, M.D.—College of Physicians and Surgeons, Keokuk, Iowa, 1876. Died at his home in Tulip, Mo., Jan. 7, 1912, from diabetes; age not given.

SAMUEL F. KESSLER, M.D.—Of St. Joseph; a member of the Missouri State Medical Association. Died at his home April 15, 1912. He was a graduate of Ensworth Medical College, 1888.

HENRY ALBERT KIRCHNER, M.D.—Washington University, St. Louis, 1872; for twenty-five years physician to the German General Protestant Orphans' Home. Died at his home in St. Louis, Jan. 30, 1912, from nephritis; aged 61.

JOHN B. LAGAN, M.D.—Of St. Louis; graduate of Kansas City Medical College, 1882. Died at Baptist Sanitarium, St. Louis, Nov. 30, 1911, from cerebral hemorrhage; aged 63.

ISAAC RICHARD LANE, M.D.—Northwestern University Medical School, Chicago, 1867, one of the oldest practitioners in southwest Missouri. Died at Alexian Brothers Hospital in St. Louis, May 19, 1911; aged 75. His home was at Mountain Grove, Mo.

J. B. LEEKE, M.D.—Of Stanberry, Mo. Died at Tolopa, Okla., while visiting there, Jan. 8, 1912; aged 54.

C. C. LEEPER, M.D.—Of Braymer, Mo.; president of the board of managers of the State Industrial School for Girls at Chillicothe, Mo.; graduate of College of Physicians and Surgeons, Keokuk, Iowa, 1880. Died at the South Side Hospital in Kansas City on the afternoon of Feb. 21, 1912; aged about 50 years. He was prominent in his profession and in politics, being a Republican of large influence. The cause of death was blood poison, resulting from infection of slight injury to little toe.

ALEX C. MAJOR, M.D.—Of Excelsior Springs, Mo. Died at his home, Feb. 14, 1912, after a brief illness of pneumonia. Graduated from the St. Louis Medical College, 1885. He practiced in Kansas City ten years prior to moving to Excelsior Springs. He was about 40 years old.

AUBURN MARTIN, M.D.—Bellevue Hospital Medical College, 1864. Died at his home near Ashland in Boone County, Mo., Jan. 3, 1912; aged 77.

CHARLES P. MARTIN, M.D.—University Medical College, Kansas City, 1883; a practitioner of Jameson, Mo. Died at Ensworth Hospital, St. Joseph, March 15, 1912, four days after an operation for appendicitis; aged 50 years.

A. J. MAYFIELD, M.D.—Graduate St. Louis College Physicians and Surgeons, 1885; of Lutesville, Mo. Died Nov. 11, 1911, from cerebral hemorrhage; aged 69.

NATHANIEL EDWARDS METCALFE, M.D.—Barnes Medical College, St. Louis, 1902; member of Missouri State Medical Association; president of Maplewood Physicians' Club. Died at his home in Maplewood, near St. Louis, March 23, 1912, from nephritis; aged 57.

GEORGE D. MILLER, M.D.—Missouri Medical College, St. Louis, 1885; of Boydsville, Mo. Died June 3, 1911, from the effects of an overdose of morphin, said to have been taken with suicidal intent; aged 73.

ALFRED W. MITCHELL, M.D.—Washington University, St. Louis, 1879; a member of the American Medical Association and local surgeon of the Frisco System at Humansville, Mo., a member of the legislature for two terms from Polk County. Died suddenly, while working in his garden, Sept. 4, 1911, from heart disease; aged 55.

DR. JOHN B. NEFF.—Of Springfield, Mo. Died of typhoid fever after about two weeks' illness; aged 42 years. He was a member of the Missouri State Medical Association. He died July 27, 1911. Graduated at Missouri Medical College, 1890.

ISAAC FRANKLIN NOEL, M.D.—Graduate from American Medical College, St. Louis, in 1882; a practitioner at Unionville, Mo., since 1883. Died at his home in Unionville, April 4, 1911, from apoplexy; aged 53.

JAMES H. OSBORNE, M.D.—Medical College of Indiana, 1889, for many years a practitioner at Gilliam, Mo. Died at Omaha, Neb., June 24, 1911, from Bright's disease; aged 65 years.

THOMAS P. OVEN, M.D.—University of Michigan, 1876, also University New York, 1877; local surgeon for the Burlington System at Brookfield, Mo., for twenty-five years. Died at his home Jan. 25, 1912, from pneumonia; aged 63.

BENJAMIN PERKINS, M.D.—Eclectic Medical College of Pennsylvania, 1867; many years a practitioner at Croxton, Mo. Died at the home of his son at Bellflower, Mo., Dec. 15, 1911; aged 82. (Cause of death not given.)

J. D. RAINES, M.D.—A retired physician of Palmyra, Mo., dropped dead Thursday, April 4, 1912; aged 77 years. No other data.

CHARLES F. REMME, M.D.—Missouri Medical College, St. Louis, 1878; a member of the St. Louis Medical Society. Died in his apartments in St. Louis, Aug. 25, 1911, from cerebral hemorrhage; aged 62 years.

WILLIAM HARVEY RUSH, M.D.—Washington University, St. Louis, 1901; a member of the American Medical Association; lecturer on clinical chemistry and microscopy in his alma mater; a member of the staff of the Washington University Hospital and clinical assistant in Washington University Dispensary. Died suddenly at his home in St. Louis, June 2, 1911; aged 45. Cause of death not given.

LEWIS CLARENCE SAMPSON, M.D.—Ensworth Medical College, St. Joseph, Mo., 1900. Died at his apartment in St. Joseph, Mo., July 23, 1911, from cirrhosis of the liver; aged 37.

DR. PAUL SCHWEITZER.—Professor emeritus of chemistry in the University of Missouri. Died at his home in Columbia, Mo., in August, 1911. He was 71 years old, and when he resigned from the faculty in 1906, he was the oldest teacher in the University in point

of service, having served thirty-four years. While Dr. Schweitzer was not a practicing physician, he was an M.D., and there are a great many physicians practicing in Missouri and elsewhere who were his pupils in chemistry, all of whom will ever remember him with reverence. A Christian gentleman of rarest ability and scientific attainments, he enjoyed the utmost confidence of all who knew him.

GEORGE W. SCOLLAY, M.D.—Missouri Medical College, St. Louis, 1840, who had not practiced since 1851, but had devoted his time to chemistry, died at the home of his daughter in St. Louis, March 4, 1912, from arteriosclerosis; aged 92.

THOMAS TANAY, M.D.—University of Nashville, 1875; a veteran of the Civil War. Died at his home in Joplin, Mo., June 8, 1911, from the effects of an injury received in a fall several months before; aged 68.

SAMUEL MARTIN TEEL, M.D.—University of Virginia, 1876; member American Medical Association; a practitioner in Cooper County, Mo., since 1878. Died at Prairie Home, Cooper County, Mo., Feb. 27, 1912, from pneumonia; age not given.

NORMAN F. TERRY, M.D.—Of Springfield; a graduate of Miami Medical College (Ohio), 1876. Died suddenly at his office, April 17, 1912, from an acute attack of heart trouble. He was president of Springfield Hospital Association and chief surgeon to the Hospital; a member of the Missouri State Medical Association and the American Medical Association.

GEORGE W. WALDEN.—License, Missouri, 1883; of Miami Station, Mo. Died at his home June 5; aged 81.

LEWIS H. WEATHERBY, M.D.—Of St. Joseph. Died in a local sanitarium, January 20; aged 81 years. No other information furnished except that he was a prominent citizen, and was at one time probate judge of DeKalb County, Mo., and for many years postmaster at Maysville.

HENRY P. WHERRITT, M.D.—For twenty-three years a practitioner at Independence, Mo.; member of American Medical Association; a Confederate veteran. Died at his home in Independence, Dec. 29, 1911, from heart disease; aged 69 years.

PHILO P. WHITE, M.D.—University of Louisville, Ky., 1874. Died at his home in St. Louis, March 12, 1912, from chronic nephritis; aged 68.

HERMAN WICHMANN, M.D.—Humbolt Institute, St. Louis, 1864. Said to have been the oldest native physician in St. Louis. Died at his home in St. Louis, Jan. 22, 1912, from a "complication of diseases;" aged 69.

HOMER LEE VOLDRIDGE, M.D.—Washington University Medical School, 1901; a member of the Caldwell County Medical Society. Died at his home in Breckenridge, Mo., May 27, 1911, from tuberculosis; aged 33.

DANIEL AYRES YARNELL, M.D.—Beaumont Hospital Medical College, St. Louis, 1889. Died at his home in Eldon, Mo., July 29, 1911, from the effects of an accidental overdose of laudanum; aged 44.

The following have died but we have no data, our letters of inquiry having not been answered: DR. J. R. DAVIS, Makane, Mo.; DR. D. W. COON, Trenton, Mo.

J. E. HARRIS, Chairman.

C. A. ANTHONY.

T. B. M. CRAIG.

The Committee.

MEMBERS REGISTERED AT THE SEDALIA MEETING

May 21-23, 1912

Adecek, D. C., Warrensburg.
Adecek, J. A. B., Warrensburg.
Alberts, Edward A., Sedalia.
Alderman, Mason C., Sedalia.
Allee, E. M., Speed.

Allee, Wm. S., St. Joseph.
Amerland, J. Henry, St. Louis.
Amerman, Isaac W., Nevada.
Austin, Marcus B., Brunswick.
Ayars, Treston R., St. Louis.
Bagby, B. H., Centertown.
Bailey, Fred W., St. Louis.
Barelay, Robert, St. Louis.
Barnhart, Don A., Huntsville.
Barr, Bernice B., Clinton.
Barron, W. H., Mine La Mott.
Bartlett, Willard, St. Louis.
Baskett, J. N., Hannibal.
Battersby, R. S., Shelbyna.
Bay, Harry, Cole Camp.
Bayliss, W. M., Clarence.
Bazan, L. A., Clark.
Beckemeyer, W. A., Sedalia.
Behrens, Louis H., St. Louis.
Bell, John M., St. Joseph.
Bell, Wm. E., Osceola.
Bell, W. T., Stoutsville.
Berry, Robert W., Mexico.
Binnie, J. F., Kansas City.
Bishop, Wm. T., Hughesville.
Blacksten, H. E., Excelsior.
Bliss, Malcolm A., St. Louis.
Block, Jacob, Kansas City.
Bohling, Cord, Sedalia.
Bonham, Vaughan Q., Fayette.
Booth, David S., St. Louis.
Boulware, Theodorice C., Butler.
Bradley, T. L., Warrensburg.
Bradley, Wm. P., Windsor.
Brady, Jules M., St. Louis.
Braecklein, W. A., Higginsville.
Broderick, David E., Kansas City.
Brosius, W. L., Gallatin.
Brown, George S., Edina.
Brown, Orville H., St. Louis.
Brown, Tinsley, Hamilton.
Brummall, Jefferson D., Salisbury.
Burke, Foster W., Laclede.
Burke, John P., Sr., California.
Burke, John P., Jr., California.
Cadwell, Victor, Poplar Bluff.
Callaway, Larkin H., Nevada.
Campbell, A. J., Sedalia.
Campbell, O. Beverly, St. Joseph.
Cartwright, Clarence P., Hughesville.
Castelaw, R. E., Kansas City.
Case, Z., Warrensburg.
Caulk, John R., St. Louis.
Chaffin, W. F., Raymore.
Chambers, J. Q., Kansas City.
Chapman, A. W., Charleston.
Chilton, J. C., Hannibal.
Clabaugh, O. W., Green Ridge.
Clapp, Chambers B., Moberly.
Clark, H. M., Platte City.
Clark, W. A., Jefferson City.
Cline, Wilburn, Appleton City.
Conover, C. C., Kansas City.
Craig, T. B. M., Nevada.
Crawford, H. S., Harrisonville.
Crockett, James A., Stanberry.
Crum, J. A., Marion.
Cuddy, Oren L., Lincoln.
Curl, A. C., Schell City.
Davis, Charles B., Walker.
Davis, W. L., Elmira.
De Vilbiss, E. F., Kansas City.
De Vilbiss, Frank, Tipton.
Dixon, C. H., Holliday.
Dock, George, St. Louis.
Donnell, R. E., De Soto.
Doolin, Lee R., Gallatin.
Dorsett, Walter B., St. Louis.

- Downing, T. J., New London.
 Dunlap, W. O., Sedalia.
 Dunlop, H. E., Cole Camp.
 Dyer, David P., Sedalia.
 Elam, Wm. T., St. Joseph.
 Elliott, James H., West Plains.
 Elliott, W. H., Bunceton.
 Ellis, F. B., Garden City.
 Elmer, Warren P., St. Louis.
 Engelbach, Wm., St. Louis.
 Estill, Wm. G., Lawson.
 Evans, Chester L., Oregon.
 Evans, W. H., Sedalia.
 Fassett, Chas. Wood, St. Joseph.
 Ferguson, Robt. L., Green Ridge.
 Ferguson, W. J., Sedalia.
 Ferrell, John J., Owensville.
 Fewel, Richard B., Montrose.
 Fisher, Amos T., Maryville.
 Fleet, John Bennett, New Franklin.
 Fogle, Robert L., Otterville.
 Freeman, Arthur B., Joplin.
 Freudenberg, H. C., Clarksburg.
 Frick, Wm., Kansas City.
 Frick, Wm. J., Kansas City.
 Fry, Charles E., Syracuse.
 Funkhouser, Robt. M., St. Louis.
 Gibbins, Wm. H., Clinton.
 Goins, George W., Breckenridge.
 Goodier, Robert H., Stoutsville.
 Goodson, Wm. H., Liberty.
 Goodwin, E. J., St. Louis.
 Gradwohl, R. B. H., St. Louis.
 Graham, Thos. R. E., Chula.
 Green, John, Jr., St. Louis.
 Griffith, Jefferson D., Kansas City.
 Grindon, Joseph, St. Louis.
 Gunn, A. J., Versailles.
 Haire, Robt. D., Clinton.
 Haley, Robert, Brookfield.
 Hall, John R., Napton.
 Hall, Oscar B., Warrensburg.
 Hall, T. B., Marshall.
 Hamel, A. H., St. Louis.
 Hampton, J. R., Clinton.
 Hamson, A. M., Lees Summit.
 Harral, Walter E., St. Louis.
 Harris, B. W., Georgetown.
 Harris, Downey L., St. Louis.
 Harris, J. A., Mt. Vernon.
 Harrison, John Frank, Mexico.
 Head, C. W., Windsor.
 Heaton, A. H., Sedalia.
 Hempelmann, Louis H., St. Louis.
 Henson, L., Galena.
 Higdon, Edward E., Allenville.
 Highfill, M., Marshfield.
 Hill, Howard, Kansas City.
 Hiller, Frank B., Jefferson City.
 Hoberecht, Carl Albert, St. Louis.
 Holtzen, E. E., Sedalia.
 Hopkins, Thos. A., St. Louis.
 Hornbeck, Joseph T., Nevada.
 Hume, Edwin L., Bourbon.
 Hurford, Phelps G., St. Louis.
 Hutchison, R. B., Dresden.
 Jackson, Clarence M., Columbia.
 *Jackson, E. W., Rochester, N. Y.
 Jackson, J. D., Marshall.
 Jackson, Jabez N., Kansas City.
 James, Samuel C., Kansas City.
 Jennings, R. J., Leesville.
 Jerard, H., Pleasant Hill.
 Johnson, S. A., Springfield.
 Johnson, Wm. S., Warrensburg.
 Jones, W. G., Lincoln.
 Jurgens, Henry J., Edina.
 Kampschmidt, A. W., Columbia.
 Kelly, Sam G., Sedalia.
 Kendall, W. A., Poplar Bluff.
 Kenney, Wm. L., St. Joseph.
 Kerr, H. L., Crane.
 Kieffer, Alonzo R., St. Louis.
 Klingner, Thos. O., Springfield.
 Knott, Minerva, Sedalia.
 Kuhn, Harold P., Kansas City.
 Latham, L. L., Latham.
 Lavender, C. L., Marthasville.
 Leighton, Wm. E., St. Louis.
 Lemon, A. L., Otterville.
 Leonard, Pierre I., St. Joseph.
 Lewis, Bransford, St. Louis.
 Lichtenberg, Joseph S., Kansas City.
 Long, F. B., Sedalia.
 Love, J. G., Nevada.
 Loveland, W. S., Verona.
 Luedde, W. H., St. Louis.
 Lund, H. G., St. Louis.
 Lutz, F. J., St. Louis.
 Lyle, Halsey M., Kansas City.
 Madry, A. H., Aurora.
 Mallette, L. T. A., Parma.
 Marchildon, John W., St. Louis.
 Marsh, John W., Tipton.
 McAdam, James D., Prairie Hill.
 McAlester, Andrew W., Columbia.
 McAlester, A. W., Jr., Kansas City.
 McCandless, O. H., Kansas City.
 McCandless, Wm. A., St. Louis.
 McCann, J. P., La Monte.
 McCluney, T. P., Warrensburg.
 McComb, J. A., Lebanon.
 McComb, J. L., Lamar.
 McComas, A. R., Sturgeon.
 McConkey, Clarence M., Lathrop.
 McLemore, Tipton, Nevada.
 McNeil, Chas. A., Sedalia.
 McNeil, Geo. E., Sedalia.
 Miller, A. B., Macon.
 Miller, Enoch H., Liberty.
 Miller, H. Edward, St. Louis.
 Miller, Sherman, Ulrich.
 Miller, W. Jackson, St. Louis.
 Mitchell, H. C., La Monte.
 Mitchell, J. E., Hughesville.
 Mitchell, O. W. H., Columbia.
 Moore, Geo. M., Linn Creek.
 Moore, J. G., Mexico.
 Moore, Wm. G., St. Louis.
 Monroe, A. E., Sedalia.
 Morley, Frank R., Sedalia.
 Morrow, W. F., Kansas City.
 Mosby, C. V., St. Louis.
 Moss, Woodson, Columbia.
 Murphy, Franklin E., Kansas City.
 Murray, L. F., Holden.
 Murray, S. A., Holden.
 Myer, Max W., St. Louis.
 Myerdiick, Albert H., Jefferson City.
 Nasse, Edmund, Wellington.
 Neff, Robert L., Joplin.
 Neilson, C. H., St. Louis.
 Nicholson, Clarence M., St. Louis.
 Nifong, Frank G., Columbia.
 Norberg, Geo. B., Kansas City.
 Norman, J. B., Otterville.
 Noyes, Guy L., Columbia.
 Ott, Charles P., Higginsville.
 Overholser, M. P., Nevada.
 Overstreet, W. C., Sedalia.
 Owens, J. H., Sweet Springs.
 *Pare, E. Y., Lecom.

*Visitor.

*Visitor.

Parker, H. F., Warrensburg.
 Parkhurst, Chas. L., Houstonia.
 Parks, Henry, Knobnoster.
 Parrish, Bert B., Kirksville.
 Parrish, John C., Vandalia.
 Parrish, J. S., Pleasant Green.
 Parrish, Samuel M., Smithton.
 Patterson, Wm. R., Warrensburg.
 Paul, Thoms M., St. Joseph.
 Pearce, Herman E., Kansas City.
 Peters, Melvin L., Cameron.
 Pitzman, Marsh, St. Louis.
 Poague, Samuel A., Clinton.
 Popejoy, H. R., California.
 Potter, Thompson E., St. Joseph.
 Prowell, J. D., Longwood.
 Reder, Francis, St. Louis.
 Reid, Edw. W., Humphreys.
 Reid, H. L., Charleston.
 Reser, T. S., Cole Camp.
 Reynolds, W. T., Kansas City.
 Rhoades, Herbert A., Foster.
 Rhodes, E. L., Lincoln.
 Rickhoff, A. H., Chamois.
 Robertson, J. M., Bunceon.
 Robinson, Ernest F., Kansas City.
 Robinson, G. Wilse, Kansas City.
 Robinson, Jos. F., Nevada.
 Robinson, John L., Kansas City.
 Rothwell, Clarence A., Mexico.
 Rothwell, John H., Liberty.
 Russell, John J., Deepwater.
 Ryland, Caius T., Lexington.
 Sander, Charles A., Marble Hill.
 Sands, M. L., Warsaw.
 Sauer, Wm. E., St. Louis.
 Saunders, Louis E., Stoutsville.
 Savage, H. G., Warsaw.
 Scherek, Henry J., St. Louis.
 Sehlucter, Robert E., St. Louis.
 Schneider, Jacob A., Concordia.
 Schreiman, Ferdinand, Concordia.
 Seba, John D., Bland.
 Seelig, Major G., St. Louis.
 Shankland, Wm. M., Clinton.
 Sheldon, J. G., Kansas City.
 Shelton, Mitchell C., Joplin.
 Shobe, H. G., Jefferson City.
 Shuck, Lee L., Nelson.
 Shumate, D. L., Kansas City.
 Shuttee, H. C., West Plains.
 Shy, D. E., Knobnoster.
 Shy, M. P., Sedalia.
 Skinner, Edw. H., Kansas City.
 Smith-Carroll, St. Louis.
 Smith, J. D., Nelson.
 Smith, J. R., Warsaw.
 Smith, Marshall A., Gallatin.
 Sneed, C. M., Jefferson City.
 Son, E. R., Osage City.
 Stewart, Edw. L., Kansas City.
 Stone, A. B., Lamar.
 Swahlen, Percy H., St. Louis.
 Talbott, Hudson, St. Louis.
 Taussig, Frederick J., St. Louis.
 Tesson, Noah A., Kansas City.
 Thompson, Wm. G., Holden.
 Thrailkill, Edw. H., Kansas City.
 Tiffany, Flavel B., Kansas City.
 Timberman, Jno. H., Marston.
 Titsworth, Guy, Sedalia.
 Todd, Luther A., St. Joseph.
 Todd, Wm. T., Thompson.
 Tout, B. B., Archie.
 Trader, Chas. B., Sedalia.
 Unterberg, Hillel, St. Louis.
 Vinyard, Geo. W., Jackson.

Walker, E. R., Sedalia.
 Walker, W. E., La Monte.
 Wallace, Charles H., St. Joseph.
 Wallace, Jno. S., Brunswick.
 Walton, J. H., Windsor.
 Watts, Chas. W., Fayette.
 Welch, A. J., Kansas City.
 Welch, Jas. C., Salem.
 Welch, J. Franklin, Salisburg.
 Welch, Wm. A., Callao.
 Wheeler, W. M., Sedalia.
 Williams, D. B., Kansas City.
 Williams, James H., Hume.
 Williams, Vincil O., Nevada.
 Williams, Porter E., Tipton.
 Wills, Wm. J., Sedalia.
 Wilson, Dora Green, Kansas City.
 Wilson, G. C., Nevada.
 Wilson, G. S., Fortuna.
 Wilson, R. P. C., Platte City.
 Williamson, W. H., Mokane.
 Wood, A. M., Lentner.
 Wood, E. A., Sedalia.
 Wood, N. P., Independence.
 Woodson, Chas. R., St. Joseph.
 Wright, James B., Trenton.
 Wyer, Harry G., Kirkwood.
 Yancey, Edwin F., Sedalia.
 Yater, Jos. M., Nevada.
 Total, 365.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

CHOLERA BACTERIN, MULFORD, is designed for the purpose of immunizing against cholera and contains killed cholera vibrios. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, June 1, 1912, p. 1685).

TYPHO-BACTERIN, MIXED, MULFORD, is a typhoid vaccine containing killed *Bacillus typhosus* and *Bacillus paratyphosus* A and B. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, June 1, 1912, p. 1685).

BISMUTH BETA-NAPHTHOLATE (Bismuthi Beta-Naphtholas) is a bismuth salt of beta-naphthol. It is a brownish or grayish powder without odor, almost tasteless and insoluble in water. It is decomposed into its constituents in the intestines and hence is used in catarrhal and fermentative gastro-enteric disorders, such as gastritis, dysentery, diarrhea, etc. Dose, for children 0.1 to 0.3 gm. (1½ to 5 grains) and for adults 1.5 to 5 gm. (22 to 75 grains) daily.

BISMUTH BETA-NAPHTHOLATE, MULFORD, complies with the description given above. It is also marketed in the form of tablets each containing 0.3 gm. (5 grains). H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, June 15, 1912, p. 1857).

THE JOURNAL

OF THE

Missouri State Medical Association

The Official Organ of the State Association and Affiliated County Societies

Issued Monthly under direction of the Publication Committee

ADDRESS ALL COMMUNICATIONS TO 3525 PINE STREET, ST. LOUIS, MO.

Volume IX

AUGUST, 1912

Number 2

E. J. GCODWIN, M.D.,
EDITOR

PUBLICATION } W. H. BREUER, M.D., Chairman
COMMITTEE } A. W. McALESTER, Jr., M.D.
 } M. A. BLISS, M.D.

ORIGINAL ARTICLES

REPORT OF THE COMMITTEE ON CANCER INVESTIGATION*

F. J. LUTZ, M.D., CHAIRMAN
ST. LOUIS

The Committee on Cancer, which was created at the session of this Association in 1909 for the purpose of making an annual report on the prevalence, nature and advance in the treatment of cancer in this state, last year made a report through its chairman without presenting any data, and asked for further time during which it might lay the foundation for a presentable report. The committee began its labors by compiling a series of questions, a copy of which is attached hereto and made part of this report. (A) The question blanks were sent to all the members together with a letter of request (B) in which an appeal was made to them to assist this committee in the interest of science and humanity. To the 2,475 circulars which were sent out the committee is gratified to have received 1,064 replies. The committee had requested those to whom the blanks were sent to return the blanks, signed, even though no cases of cancer had come under their observation during the three months beginning with the first of September and ending on the thirtieth of November, 1911. The collective investigation of your committee has therefore had the active cooperation of 1,064 members of the Association, which shows a landable interest in the study of the disease, and is additional evidence of the value of our organization to scientific medicine.

Perhaps it will help to offset the somberness of a scientific report if I inject the replies of two members who differed radically from the views which the committee had in mind, and from the objects which it intended to accomplish. The writer of the first communication (C) is so con-

vinced of the correctness of his own position that he had the courage of his convictions and signed his communication; the second (D), a little doubtful of himself, made his communication anonymously. I read you the first letter and show you the second communication which was on one of our blanks.

Four hundred of the replies were reports of cases and 739 doctors had no cases of cancer under their observation within the period mentioned. The committee purposely restricted the time which the report of individual cases was to cover because we realized that much of the work is educational. Many physicians from press of circumstances, or because they have not formed the habit of doing so, keep no record of their cases that would be of much scientific value but trust rather to their memories on which have been impressed the salient features of interesting cases; this impression grows dim after the lapse of time and is comparatively valueless. When the work of this committee will be continued we have no doubt that the responses will be more numerous and still more satisfactory.

Your committee has also seen fit to embrace in this collective inquiry the data furnished by the State Bureau of Vital Statistics (E) as to the number of cases of death from cancer during the three months mentioned; and similar data furnished by the Health Department of St. Louis (F), which show that cancer, as we all know, is a frequent cause of death and should direct our attention to the solution of the problems as yet unsolved concerning this disease.

In the replies 107 counties and the city of St. Louis are represented out of a total of 114 counties. No reports were received from members in the counties of Dade, Dallas, Dent, Douglas, Hickory, Ozark and Texas.

The reports designate among the males: single 13, married 136, divorced 3, widowed 20. Among the females: single 17, married 58, divorced 2, and widowed 43.

Dividing the known ages of the sufferers into decades, between the ages 1 to 10: female 1; 20

* Read in the General Session, Fifty-Fifth Annual Meeting, Missouri State Medical Association, Sedalia, May 21-23, 1912.

to 30: male 2, female 9; 30 to 40: male 6, female 28; 40 to 50: male 31, female 41; 50 to 60: male 48, female 51; 60 to 70: male 46, female 41; 70 to 80: male 40, female 15; 80 to 90: male 9, female 3; 90 to 100: male 1, female 1; ages unknown: male 5, female 14.

they are suggestive, first as to the value of the possible cooperation of the State Medical Association with the Bureau of Vital Statistics and, in the next place, the ready response which was made to the request of the Association on the part of its members.

A
MISSOURI STATE MEDICAL ASSOCIATION
COLLECTIVE CANCER INVESTIGATION

FOR THE MONTHS OF SEPTEMBER, OCTOBER AND NOVEMBER, 1911

Report of Dr. _____ Town _____

Initials of patient _____ Age _____

Male _____ Female _____ Single _____ Married _____ Divorced _____ Widowed _____

QUESTIONS	ANSWERS			
1. NATIONALITY.—(1) Where born?	1			
2. COLOR.—(1) White, (2) Colored? If colored, state whether (3) black or mulatto.	1	2	3	
3. OCCUPATION.—Was patient ever employed with (1) tar, (2) paraffine, (3) soot, (4) aniline, (5) arsenic, (6) tobacco, (7) wood work, or (8) any other vocation which may have exerted a detrimental influence? In the case of a woman without a vocation, give (9) that of husband.	1	2	3	4
	5	6	7	8
	9			
4. RESIDENCE.—(1) Town, (2) street, (3) what story, (4) front or rear, (5) basement? If in basement, state if (6) damp. Is the house (7) isolated? Is house situated (8) near a ditch, (9) stream, (10) swamp, or (11) woods? Did (12) cancer occur in the adjoining houses? Was (13) cancer frequently observed in the near vicinity? In case of changes of residence within the last five years, (14) at what place did the disease most probably begin?	1	2	3	4
	5	6	7	8
	9	10	11	12
	13		14	
5. APPARENT BEGINNING OF THE CANCER.—(1) In what year? (2) At what season of the year? (3) Were several persons afflicted with cancer during the same time?	1	2	3	
6. LOCATION AND NATURE OF THE CANCER.—(1) Which organ was first affected? (2) Has a microscopic examination been made?	1	2		
7. APPARENT CAUSE OF THE CANCER.—(a) Family History. (1) Were there cancerous diseases in blood relations? (2) If so, in which? (3) Did intermarriage occur? (4) Where was cancer located? (5) When did these relatives die from cancer? (6) Were husband and wife afflicted with cancer?	1	2	3	4
	5	6		
(b) Contagion. Was the disease possibly conveyed (1) from other cancerous patients, or (2) from domestic animals afflicted with cancer, as (3) dog, (4) cat, (5) cow, or (6) other animal?	1	2	3	4
	5	6		
	1	2	3	4
	5	6	7	8
	9	10	11	12
	13	14	15	16
	17	18	19	20
	21		22	
8. OUTCOME OF THE CANCER.—(1) Is the patient still alive? (2) When did the patient die?	1	2		
9. AUTOPSY FINDINGS.—(1) Was an autopsy performed? (2) If so, where was the primary seat?	1	2		
10. REMARKS—				

For additional blanks please address the Cancer Committee, 3525 Pine Street, St. Louis, Mo.

The races were represented by: White 383, black 7, mulatto 3.

Nationalities: United States, 294; Germany, 49; England, 11; Scotland, 5; Russia, 3; Isle of Man, 1; South America, 1; Ireland, 10; France, 2; Sweden, 3; Wales, 2; Hungary, 1; Switzerland, 1; Canada, 1; Greece, 1.

Your committee realizes that the data obtained do not permit it to draw any inferences. But

The many inquiries which reporters made of the committee concerning the nature and extent of the inquiry has convinced your committee that the work mapped out for it has met with the approval and endorsement of the members of our organization. And as the scope of our inquiry is extended we are convinced that much good will come from it.

B

MISSOURI STATE MEDICAL ASSOCIATION
COMMITTEE ON CANCER INVESTIGATION

November 29, 1911.

Dear Doctor: The Cancer Committee of the Missouri State Medical Association was created for the purpose of making an annual report of the prevalence of cancer in this state, its nature, and the advances in the treatment.

To facilitate the work of the committee, each case should be reported upon one blank, and if additional blanks are needed, please address a post-card to the Cancer Committee, 3525 Pine street, St. Louis, Mo.

If no cases of cancer have come under your observation during the three months stated in the blank, please sign your name to the blank and return it to the committee.

The term cancer, for the purpose of this investigation, includes all forms of malignant disease.

D

MISSOURI STATE MEDICAL ASSOCIATION

COLLECTIVE CANCER INVESTIGATION

FOR THE MONTHS OF SEPTEMBER, OCTOBER AND NOVEMBER, 1911.

Report of Dr. _____ Town _____

Initials of patient _____ Age _____

Male _____ Female _____ Single _____ Married _____ Divorced _____ Widowed _____

QUESTIONS	ANSWERS			
1 NATIONALITY—(1) Where born?	1	2	3	
2 COLOR.—(1) White, (2) Colored? If colored, state whether (3) black or mulatto.	1 <i>W</i>	2	3	
3 OCCUPATION.—Was patient ever employed with (1) tar, (2) paraffine, (3) soot, (4) aniline, (5) arsenic, (6) tobacco, (7) wood work, or (8) any other vocation which may have exerted a detrimental influence? In the case of a woman without a vocation, give (9) that of husband.	1	2	3	4
	5 <i>W</i>	6	7	8
	9			
4 RESIDENCE.—(1) Town, (2) street, (3) what story, (4) front or rear, (5) basement? If in basement, state if (6) damp. Is the house (7) isolated? Is house situated (8) near a ditch, (9) stream, (10) swamp, or (11) woods? Did (12) cancer occur in the adjoining houses? Was (13) cancer frequently observed in the near vicinity? In case of changes of residence within the last five years, (14) at what place did the disease most probably begin?	1	2	3	4
	5 <i>W</i>	6	7	8
	9	10	11	12
	13	14		
5 APPARENT BEGINNING OF THE CANCER.—(1) In what year? (2) At what season of the year? (3) Were several persons afflicted with cancer during the same time?	1 <i>W</i>	2	3	
6 LOCATION AND NATURE OF THE CANCER.—(1) Which organ was first affected? (2) Has a microscopic examination been made?	1	2	3	
7 APPARENT CAUSE OF THE CANCER.—(a) Family History. (1) Were there cancerous diseases in blood relations? (2) If so, in which? (3) Did intermarriage occur? (4) Where was cancer located? (5) When did these relatives die from cancer? (6) Were husband and wife afflicted with cancer?	1	2	3	4
	5	6		
(b) Contagion. Was the disease possibly conveyed (1) from other cancerous patients, or (2) from domestic animals afflicted with cancer, as (3) dog, (4) cat, (5) cow, or (6) other animal?	1 <i>W</i>	2	3	4
	5	6		
(c) Other Sources. Can the origin of the disease be attributed to (1) injuries, (2) chemical or physical influence, (3) alcoholism, (4) tobacco, (5) tuberculosis, (6) syphilis, (7) diabetes, (8) malaria, (9) arteriosclerosis, (10) gout, (11) gastric ulcer, (12) gall stones, (13) chronic endometritis, (14) lupus, (15) chronic ulcers of leg, (16) scar following burns, (17) congenital deformities, (18) warts, (19) birth marks, (20) other causes; in women, (21) number of parturitions and (22) miscarriages?	1	2	3	4
	5 <i>W</i>	6 <i>W</i>	7 <i>W</i>	8 <i>W</i>
	9	10	11	12
	13	14	15	16
	17	18	19	20
	21	22		
8 OUTCOME OF THE CANCER.—(1) Is the patient still alive? (2) When did the patient die?	1 <i>W</i>	2		
9 AUTOPSY FINDINGS.—(1) Was an autopsy performed? (2) If so, where was the primary seat?	1 <i>W</i>	2		
10. REMARKS—				

For additional blanks please address the Cancer Committee, 3525 Pine Street, St. Louis, Mo.

To carry out one of these objects the Committee proposes to institute a collective investigation concerning the frequency and distribution of cancer in the various counties of Missouri. This can be done efficiently only by the cooperation of all the members of the State Medical Association, and we appeal to you as a sanitarian and a physician to assist the committee by filling out the enclosed blanks as carefully and accurately as the data at your disposal will permit.

Please make returns by Dec. 5, 1911. In the interest of statistical investigation every death of a cancer patient should be considered as a death from cancer even though the death was due to another cause, for instance apoplexy, pneumonia, suicide, or accident.

FRANK J. LUTZ,
GEORGE GELLIORN,
FRANK HINCHEY,
The Committee.

C

MOXETT, Mo., Dec. 8, 1911.

Missouri State Medical Association, Committee on Cancer Investigation, St. Louis, Mo.

Gentlemen: I am surprised that any committee appointed by the Missouri State Medical Association, could send out a letter to the members of the State Medical Association so idiotic and disgusting, as the letters you have sent out to the members of the association under the date of Nov. 29, 1911. In that letter the three last paragraphs:

"If no case of cancer have come under your observation during the three months stated in the blank, please sign your name to the blank and return it to the committee."

(Mark it what I say Now).

"The term cancer, for the purpose of this investigation, includes all forms of malignant diseases."

"In the interests of the statistical investigation every death of a cancer patient should be considered as a death from cancer even though the death was due to another cause; for instance apoplexy, pneumonia, suicide, or accident."

And I am wonderfully surprised that a man with the standing of Dr. Frank J. Lutz should indorse such an idiotic thing as that.

Yours truly,

M. R. TRUMBOWER.

E

JEFFERSON CITY, Jan. 31, 1912.

Dr. F. J. Lutz, St. Louis, Mo.

Dear Doctor: Replying to your letter, I will say that the number of deaths from cancer reported to this office for the month of September, was 170; for the month of October 155 and for the month of November 151, total 476.

The number of deaths from this disease for the entire year, with the exception of December was 1,741. The December returns have not, as yet, been tabulated.

Yours truly,

FRANK B. HILLER.

Secretary State Board of Health.

F

ST. LOUIS, Jan. 30, 1912.

Dr. F. J. Lutz, 1630 S. Grand Ave., St. Louis, Mo.

Dear Doctor: In reply to your favor of the 29th inst., I beg to give you below the number of deaths from cancer which occurred in this city during the months of September, October and November of last year: September, 53; October, 39; November, 33; total, 125.

Very truly yours,

MAX C. STARKLOFF,

Health Commissioner.

ON CANCER RESEARCH

The Laboratory Side of the Question*

Based on Work in Association with the Barnard Free Skin and Cancer Hospital, but in Its Detail May Represent but Indifferently the Staff or Their Views.

MARSH PITZMAN, M.D.

ST. LOUIS

The word cancer is to be understood in its broad sense of tumor growth, more especially of the malignant types. This research is in fact as

old as the human race. Malignancy was always a common cause of death, and naturally the questions of cause and cure were ever of paramount interest. In the last decade new hope has been, I believe justly, infused. It has resulted in the establishment of various special research laboratories and institutions all over the world. The Barnard Free Skin and Cancer Hospital of St. Louis is well representative of this group.

In order to understand the cause of the present hopeful interest in cancer research, we must revert a moment to history. Previous to the last fifty years the diagnosis could only be based on the gross appearance, which lead to most extraordinary confusion. For instance, infective granulomas, such as syphilis, tuberculosis, actinomycosis, were not separable from malignant growths, and even the fact that scirrhus and medullary types were both true cancers was unknown. One shrewd observation of the ancient days in the mass of confusion was that of Hippocrates, that the untreated cancers did better than the treated: that is, that many cancers grow with increased vigor under diagnostic, therapeutic or surgical massage, amateur or professional.

Following the improvements of the compound microscope came the discovery of the cells by Schleiden and Schwann (1837-8). Virchow demonstrated that all tumors were formed of cells and established our first classification. Waldeyer and Tirsch showed that carcinoma (malignant epithelial new growth) developed only from epithelium, that sarcomas (malignant connective tissue new growths) developed only from connective tissues. On this firm foundation the microscopic diagnosis of tumors became established. The remaining questions of debate are more of academic than practical interest, such as the classification of the various rare and obscure forms of tumors.

By way of parenthesis I cannot pass this opportunity without expressing my opinion that the diagnosis of malignancy in the hands of a competent pathologist is much more accurate and valuable than the rank and file of our profession appreciate. Our common source of confusion is the lack of knowledge of the fact that a section of an ulcer must contain part of the base or wall in order to arrive at a definite conclusion.¹ Further, the localization and subsequent care of the growth are decisive factors necessarily beyond the knowledge and control of the laboratory worker.

These discoveries opened a large field for the surgeon, which has been steadily cultivated and improved during the years. In truth the advance has been great, and the possibilities through education of the laity, and unfortunately also of the physician, have been merely opened to view, scarcely begun to be realized.

* Read in the General Session of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

1. Cancers differ most widely in their degree of virulence, which is often a source of misunderstanding between physician and pathologist.

But, as regards further advances, there was a feeling of helplessness and hopelessness until the discovery by Jensen of Denmark. The broader points of view had led to a study of cancer in animals, and in 1902-3 Jensen reported at length on the transplantability of a mouse cancer. After a translation into the German language, it gradually attracted world-wide attention. It established the foundation of a new line of work, the experimental study of cancer. Others had preceded Jensen. Dr. Loeb, director of our St. Louis institute, for example (1901), had reported a transplantable sarcoma of a rat. The possibility of confusion between a true sarcoma and an inflammatory granuloma led to neglect of his work.

At present there is more thought, time and means being devoted to the search for some advance in cancer therapy than ever before in history. The attack is being forced from every possible point of view — the question of heredity, precancerous stages, varying types of malignancy, clinical course, distribution among men and animals, possible etiologic factors and, above all, lines of therapy—all these fields are earnestly searched.

Cancer research has, on account of the wide field, brought all sorts of workers together on a common ground. It is not to be wondered at under such circumstances that occasionally one group resents the criticisms of another, or that at times one undervalues the work of another. A cause for congratulation is that the majority of workers of standing have been able to come together in practical agreement on so many fundamental probabilities.

The recognition of cancer as a universal disease of man, of most all mammals and of many of the lower animals, is generally acknowledged.

That cancer is a disease of the body cells, characterized by abnormal growth, and, in case of true malignancy, transplantable from animal to animal of the same kind, but not to other animals.

That chronic irritations are a widespread etiologic factor.

That microorganisms play, if any, a very minor rôle in the etiology.

This last statement requires a few words of explanation. With the great discoveries in bacteriology it was only natural that most of the ills human flesh is heir to should at first be attributed to them. All accepted human or animal tumor work has spoken firmly against the bacterial or parasitic theories. Pathologists are not so prejudiced as is popularly supposed in this belief. They were perfectly willing to concede such diseases as measles, yellow fever, tuberculosis or syphilis were caused by microorganisms, both before or after their actual demonstration. These points speak strongly against microorganisms — the lack of contagiousness, the transplanted cells

form the new tumor and the metastases, and the fact that the cancer transplants cannot be made to grow in any other animals than the one in which the growth originated. From the point of view of pure reason, as is often truly stated, it is not to be wondered at that the cells at times reproduce irregularly, that is, eventually malignancy—the absence of irregular reproduction would be.

We are now ready to deal summarily with two classes: The settled pessimist, who insists no cure has come from all the animal experimentation done. The answer is, that the work is only started and already these studies have broadened greatly our general conception of malignancy. The oversanguine optimist, who believes it not necessary to worry about the intricacies of the modern understanding of the subject, for, in a short time, he argues, all that is necessary will be to inject some new serum or chemical in order to cure any cancer. The greater our knowledge, the more we perceive how improbable is any such outcome. The early recognition of the precancerous and cancerous stages will remain a prime requisite. The last stages of cancer cachexia will presumably remain doomed no matter what advance comes. In fact, directly as our knowledge increases, comes the greater demand for a fundamental understanding of the question. Between the extremes lie the mass of tumors, those that may reasonably be expected to be influenced specifically by some, as yet undiscovered, method.

The two main lines of therapeutic attack being pushed in all researches are, the immunity reactions and the specific chemotherapy. Recently the partial success of chemotherapy, as reported by Wassermann in the *Deutsche Medizinische Wochenschrift*, has given a fresh impetus to that field. It is obvious that animal experimentation must play a large rôle in these developments.

The Barnard Skin and Cancer Hospital of St. Louis takes its part in the serious study of the cancer problem. For a paper of this scope it would be meaningless to refer to the scientific publications, which are of necessity technical. Our intramural society attempts to bring together the various workers for general discussion and criticism, in a hope that it will prove mutually beneficial. The requisite for membership is practically work and interest in cancer research in any of its ramifications.

Cancer research in the modern sense is a new and yet untilled field, the surface merely scratched. It may well at any time yield specific therapeutic results. The preliminary work is completed and the stage set, I believe, for a real advance.

Linmar Building.

CANCER OF THE STOMACH*

J. F. BINNIE, M.D.
KANSAS CITY, MO.

So much has been recently written regarding cancer of the stomach that it is difficult to present anything fresh or useful on that subject. Hertzler's chapter on gastric cancer in his magnificent "Treatise on Tumors" very thoroughly covers the subject as regards the incidence, varieties and complications of cancer. The writings of the Mayos, Deaver, Moynihan and a host of others have exhausted what is known at present regarding the symptoms, the treatment and the results to be expected in this disease. I have thought that it might not be useless to consider

rich plexus in the submucosa. In turn, the submucosal plexus drains through vessels penetrating perpendicularly the muscular tunics, into the subserous plexus.

2. Amongst the fibers of the musculature of the stomach another set of lymphatics arises and drains into the subserous plexus. There is free anastomosis between the lymphatics perforating the musculosa and those originating in the musculosa.

The lymphatics of the mucosa and submucosa are truly capillaries—i. e., they are endothelial tubes, are innocent of fibrous and muscular tunics and are not provided with valves. It is only in the large collectors of the subserous plexus that valves make their appearance.

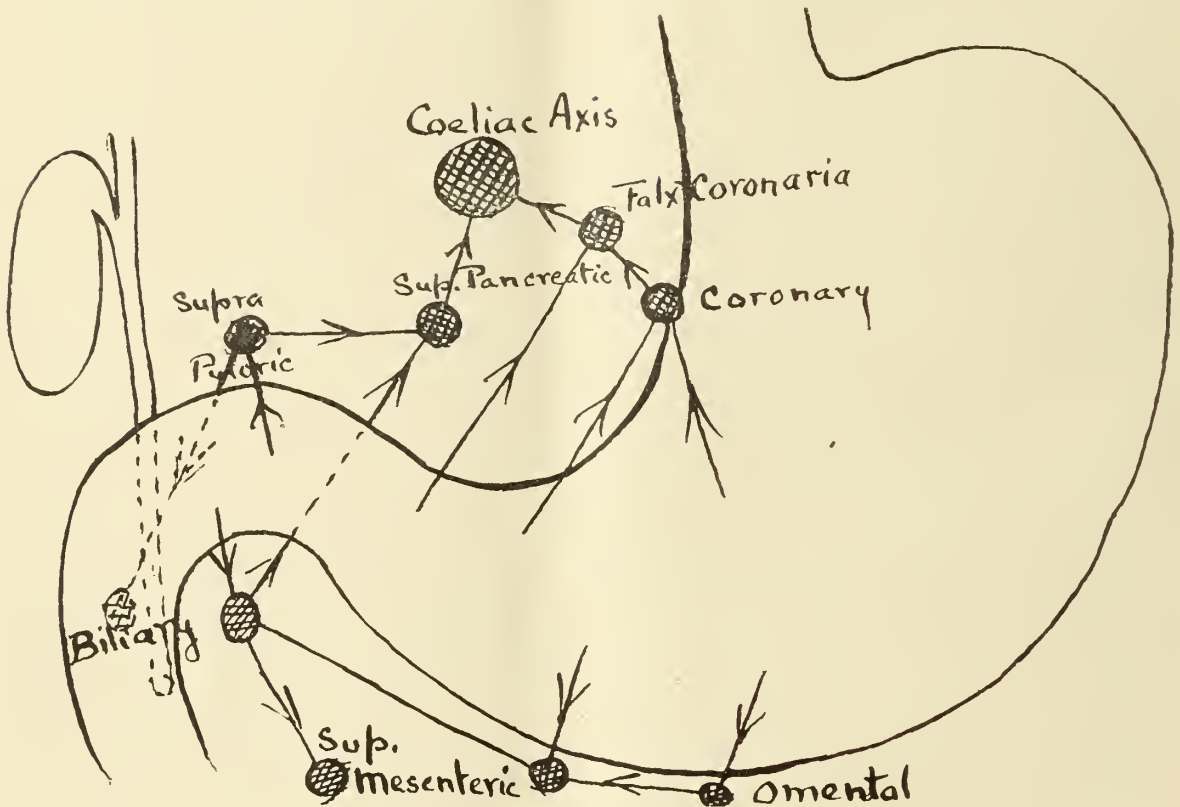


Figure 1.

shortly at this time some anatomic factors which have an influence on the spread of the disease locally and recognition of which is calculated to aid in the proper performance of radical operation.

The lymphatics of the stomach have their ultimate roots in two systems:

1. Under the epithelium and surrounding the gland tubules there is a very rich plexus of lymphatic capillaries. From this plexus short vessels penetrate the muscularis mucosæ and join another

The richness of the submucosal lymphatic plexus and its freedom from valves make it easy for infective or cancerous material to spread along the submucosal plane. There is such free communication between the lymphatics (submucosal and subserosal) of all areas of the stomach that, given obstruction to the flow through one set of collecting vessels, material injected into the subserous or submucous plexuses can readily travel in any direction from which the outflow is easiest.

Thus, if the primary lymph-nodes, through which a certain cancerous area of the stomach usually drains, become diseased and obstruct

* Read in the General Session of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

drainage then the drainage will take place by another route and the original disease spread in the submucosa.

While the duodenal submucosa is very similar to that of the stomach, viz., a layer of loose connective tissue rich in lymphatics and blood-vessels, yet at the pylorus itself the connective tissue constituting it becomes condensed and poor in lymphatics, thus there is comparatively little direct lymphatic communication between the stomach and duodenum. The duodenal and gastric lymphatics, however, drain into the same lymph-nodes and on their way to these nodes may anastomose, and thus there may, on occasion, take place a retrograde flow of lymph from the gastric into the duodenal vessels. While this exchange of lymph may not be extensive yet it must be remembered. Clinically we know that cancer can

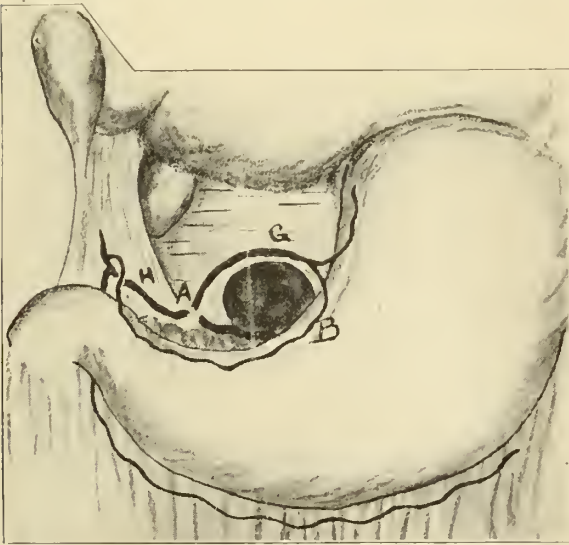


Fig. 2.—A, celiac axis; B, coronary artery; G, coronary artery in the falx coronaria; H, hepatic artery.

spread from the stomach to the duodenum, but that this spread is not usually extensive and may be explained in part at least by the above anatomic facts.

From a practical point of view the surgeon is interested in knowing, first, how and in what directions gastric cancer spreads in the stomach walls so that he may make his lines of incision beyond those regions which may be reasonably considered affected, although no macroscopic evidence of disease may be present; second, in what directions the disease may have spread through the lymphatics so that he may excise all those lymphatic territories which may reasonably be considered involved.

The first of these questions has been fairly answered by the remarks already made regarding

the lymphatic plexuses of the stomach and duodenum. Fortunately the drainage from the pyloric and prepyloric portions of the stomach is so free that it is comparatively rare to find obstruction to it sufficiently extensive to dam back the infected lymph into the cardiac area, and it is cancer of the pyloric portion of the stomach which is of particular interest to the surgeon.

The second practical point is much more difficult to answer. Practically all of the stomach drains ultimately into the glands near the celiac axis. The areas adjacent to the lesser curvature drain directly into glands along the coronary artery; the areas adjacent to the greater curvature drain into the gastroduodenal glands which in turn pass into the subpyloric glands. The pylorus itself drains both upwards to the suprapyloric and downwards to the subpyloric glands. Thus the subpyloric glands (Jamieson and Dobson) are a secondary group for the prepyloric region, but primary for the pylorus and duodenum. One or two vessels from the suprapyloric group pass behind the duodenum to low-situated nodes on the biliary chain.

The subpyloric group drain in two directions, (1) along the gastroduodenal artery anterior to the pancreas to the middle superior pancreatic glands which accompany the hepatic artery before its division; (2) downwards in front of the pancreas to glands lying beside the superior mesenteric artery.

It must not be forgotten that the celiac axis is retroperitoneal, that the coronary artery in its course along the lesser curvature of the stomach lies in the gastrohepatic or lesser omentum, but that that portion of the coronary artery between its origin in the celiac axis and its inclusion in the lesser omentum lies in the falx coronaria or gastropancreatic fold of peritoneum. A number of glands are present in this fold and through them drains the lymph from the glands in the lesser omentum. It must be remembered that certain of the lymph vessels arising near or at the pylorus pass along the lesser omentum, dodge the glands there present and pass directly into those of the falx coronaria. In operating for gastric cancer it is usually easy enough to remove with the disease the suspected lymphatics in the greater and lesser omenta and the subpyloric group, but the relation of the subpyloric vessels to the superior mesenteric group, the suprapyloric to the retroduodenal biliary group and the direct route of drainage from the pyloric region to the glands in the falx coronaria are all elements threatening success in the radical operation for gastric cancer.

302 Argyle Building.

THE SURGICAL TREATMENT OF GASTRIC AND DUODENAL ULCER*

WILLARD BARTLETT, M.D.
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A few years ago we considered gastric and duodenal ulcer a rare disease. To-day, statistics show the number of known cases to be little less than astounding. Yesterday, we did not believe it was in our power to diagnose this disease in a living person. It was only on the autopsy table that we saw for a certainty that which we dared not guess while the patient was living. To-day, the trained clinician has usually little difficulty in recognizing its symptoms. And even when we began to perceive that we were encountering the gastric variety at every turn, we still were confident that an ulcer of the duodenum was a curiosity. It is only recently that we are realizing that there are perhaps half a dozen cases of ulcer of the duodenum to one case of gastric ulcer.

With this advance in the ability to recognize a case of gastric or duodenal ulcer comes a similar advance in the ability to treat it. Modern surgery has made wonderful strides in this direction. Surgeons have gone into the experimental laboratories of our great cities and have come forth skilled in the technic of a dozen operations on the stomach and duodenum. And it is of this aspect of the treatment of gastric and duodenal ulcer—the surgical aspect—that I wish to speak.

The question has already arisen in your mind as to the indications for surgical treatment. The average patient afflicted with this disease seeks first the help of his family physician. The idea of an operation fills him with terror, for even to-day, in spite of the tremendous number of surgical operations in every civilized country on the globe, and in spite of the fact that the operative mortality is very slight, the public is not educated up to the fact that on operation, and a few weeks of postoperative treatment will, in the majority of cases, make a strong, happy individual out of a weak, suffering invalid. How long shall the physician treat the case? When shall he advise the patient to consult a surgeon?

All are agreed that in a case of perforation the operation must be performed immediately. It consists in closure of the perforation, with or without a partial or complete excision of the ulcer proper. After the necessary cleaning of the peritoneal cavity a proper drainage is usually established. Many surgeons add a posterior gastro-enterostomy to the measures undertaken for closure of the perforation.

Ellsworth Eliot, Jr.¹ goes very thoroughly into the subject and states "that on the whole the immediate advantages of supplementing the

result of a perforation with a gastro-enterostomy are at best but very slight and not at all likely to contribute materially to the patient's recovery." As the subject of perforation is not the principal aspect of this paper, we shall not go any further into its discussion.

Dr. Charles Scudder in his report of twenty-five cases of chronic ulcer or chronic indigestion says: "Cases of chronic ulcer of either the stomach or duodenum which have remained unhealed, as indicated by a persistence of symptoms, after carefully conducted and skilled medical treatment for a period of from two to three months or longer, are at present best treated by surgical measures:" and then he follows by giving seven reasons for the justification of surgical treatment:

1. Medical treatment has failed to cure the trouble.

2. The exact duration and extent of the ulcer is unknown. Hemorrhage may occur and death may result.

3. The stomach and duodenum may be perforated by the ulcer.

4. Carcinoma may develop on the ulcer.

5. Obstruction at the pylorus may occur.

6. If treated surgically a still longer period of chronic invalidism is cut short.

7. Surgery has demonstrated that it is possible to cure a large proportion of these chronic ulcers.

William J. Mayo² has considered the subject of ulcer of the stomach and duodenum with special reference to end results. The mortality was only 2.4 per cent. Many of these cases were seen previous to June 1, 1906, when the differentiation between gastric and duodenal ulcer was not well established and the operative technic had not been so well worked out. "Imperfections in methods were responsible for some failures to cure and some deaths," he says, nevertheless, "the proposition still holds good that ulcers which cause obstruction either potential or actual, present a high percentage of cures." Then, taking up this matter of indications for surgical treatment, he says, "the indications for the surgical relief of chronic ulcers of the stomach and duodenum are both positive and relative: positive if obstruction, repeated hemorrhage and severe pain exist, and if on account of disturbed digestion the patient is insufficiently nourished; relative, when for any or all of these reasons the patient is unable to maintain good physical condition on the food which circumstances permit him to obtain, and his chronic disability interferes with his vocation."

I believe that medical treatment can, in many cases, help the patient if tried early enough. The obstructed cases, however, can only be relieved by a drainage operation. In other cases, where the obstruction of the pylorus is not so complete as to interfere with function, medical treatment can at least ward off the symptoms for many

* Read in the General Session of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

1. Eliot, Ellsworth, Jr.: Clinical Features and Treatment of Acute Perforating Gastric and Duodenal Ulcer, *Ann. Surg.*, iv, 546.

2. Mayo, William J.: *Ann. Surg.*, liv, 313.

months. It is during this period when the symptoms are in abeyance that the patient is pronounced "cured." It has been repeatedly shown, however, that ulcers treated by medical means are apt to recur in half if not more of the cases. "Relief from an 'attack' in a case of chronic duodenal ulcer is easy," says Moynihan.³ "A cure of the condition by medical means is, I believe, almost impossible."

I cannot impress too strongly on you the fact that, if a patient is treated month after month by medical means, he not only is not cured, and spends his days in semi-invalidism, but he is also constantly becoming less and less fit for operation. Picture in your mind a patient, suffering constantly from chronic recurring indigestion, due to ulcer or its complications, such as adhesions or cicatricial deformity of the stomach. Hemorrhage is probably not demonstrable in such a patient, and you feel surgery is too radical for him. Yet this patient cannot enjoy his meals, because of the dread of the subsequent pain and discomfort, and when he does eat, he soon empties his stomach by vomiting or the stomach tube, in order to allay his suffering. Before long this patient is so emaciated that the dangers from an operation are very great. I believe with Dr. John B. Deaver that "a large part, indeed almost all, the mortality of surgery comes from delay on the part of the patient, or his physician, and should be charged up where it belongs."

Recent as his knowledge of duodenal ulcer is, the surgeon derives his most satisfactory results from its surgical treatment. It presents on the whole a much higher average of good results and even cures than operations for gastric ulcer. Mayo states that gastroduodenostomy, with or without infolding of the ulcer, not only affords great relief to the patient with duodenal ulcer, but a permanent cure in a remarkably high percentage of cases.

Let us consider briefly the indications for various forms of operations in cases of gastric and duodenal ulcer.

Perhaps the one most popular and most widely discussed is the gastro-enterostomy. This operation is not a procedure in keeping with any physiological principle. Nevertheless, practically it is the most useful thing at our command at the present time for the treatment of obstruction. Because of the dangers inherent in this operation, we must use as much conservatism as the case will permit. A good, safe rule to go by is that a gastro-enterostomy should be performed only in cases in which there is pyloric obstruction—that is, in which there is a mechanical interference which prevents the stomach from emptying itself into the intestine over night. I have operated on fifty-three ulcer patients and in twenty-four cases, using the above rule as a guide, I have done a gastro-enterostomy alone. Conservatism with this

operation is everywhere prevalent. Surgeons all over the country are adopting some rule, arbitrary or otherwise, which they can use as a guide.

A moment ago I spoke of the dangers inherent in a gastro-enterostomy. The greatest remote danger and the one which it may take years to develop is ulcer of the jejunum. This danger, however, I am convinced is to be feared only when the practically obsolete gastro-enterostomy is done. I have had three such cases in my experience. Two of them had to be reoperated and one perforated. Mayo-Robson believe that "ulcer of the jejunum probably never occurs except as a complication of this operation of gastro-enterostomy," and then add "not only must the profession set its face against the wholesale performance of gastro-enterostomy for every gastric ailment, and limit it to suitable cases, particularly those with obstructed pylorus, but we must also try to effect such improvements in technic that jejunal or gastroduodenal ulcer will not be likely to occur." To this might be added that dietetic after-treatment, calculated to keep down superacidity, is not to be neglected after a gastro-enterostomy.

Then there is the second grave danger resulting from a gastro-enterostomy—namely, vicious circle. I lost three of my earlier patients in consequence of this complication. The development of the technic of gastro-enterostomy is making it less frequent. However, my candid opinion is that such a possibility still exists. Recently, on Feb. 28, 1912, I did a posterior gastro-enterostomy. Two months later, on the 4th of April, I had to open the abdomen again for vicious circle and devise a means of making an entero-enterostomy, where the loop was so short as to make the procedure seem impossible of performance in the ordinary way. This was accomplished by making an opening in the anterior wall of the stomach, thrusting two halves of a Murphy button into the gastro-enterostomy opening on the posterior wall and carrying one into the afferent and one into the efferent bowel. They were drawn together, with the result that the patient is now at her ordinary duties, not having vomited since.

Until very recently the mortality resulting from pyloroplasty was estimated at 25 per cent. Now we have mastered the technic of this operation until we can state with confidence that the fatal results are few. I consider, however, that it is indicated only where there is reason for fear that a cancerous degeneration of the ulcer has taken place.

Pyloroplasty does not receive very ardent support from the majority of surgeons. It is practically never done excepting as the Finney operation and even this is still an unsettled procedure.

Mayo reports that in nineteen cases of duodenal ulcer, the ulcer was excised with or without pyloroplasty or the gastroduodenostomy of Finney. He considers the gastroduodenostomy of Finney more satisfactory than pyloroplasty.

3. Moynihan: Duodenal Ulcers, p. 158.

Let us now consider briefly the question of excision of the ulcer. Theoretically, it is the ideal method of procedure. When excision is too difficult or dangerous, or when the ulcer is only of moderate duration, sutures may be used to cut off the base of the ulcer.

Mayo in the article above referred to says: "Ulcers of the body of the stomach without obstruction, especially those deep excavations adherent to the pancreas, have given the least satisfactory results following excision. A combination of gastrojejunostomy and excision gives much better results than excision alone. Even with excision and gastrojejunostomy, the results have not equaled those obtained in pyloric stenosis and duodenal ulcers." Later explorations seeking a reason for this found that the site of the former operation was fixed by adhesions.

I believe that excision is indicated where drainage is not interfered with, but when other features such as hemorrhage, threatened perforation, pain, etc., menace the health or life of the individual.

Exclusion of the pylorus is an additional procedure to gastro-enterostomy operations. It is very useful in ulcer cases, when the contents of the alimentary tract would otherwise come in contact with a non-excisable ulcer which has perforated an important viscus. Exclusion is most useful, also, in treatment of ulcer in which scar tissue has not materially closed the pylorus. In such instances food leaves the stomach through the gastro-enterostomy opening only, until the scar heals. After this healing the spastic pylorus opens, whereupon if it has not been excluded, the current frequently resumes the normal original channel through the pylorus, and then all the mechanical conditions are again in effect, which caused or assisted in causing the development of the original lesion. Therefore, we are led to believe that exclusion is a very valuable procedure in these cases.

Again exclusion is a safer and more simple operation than pylorotomy. It leaves much better mechanical status and accomplishes the same benefit, with the single exception that it does not as fully guarantee against cancerous development at the site of the old ulcer.

Up to the present time, I have done fourteen operations on the human in which the pylorus was excluded. This was done by cutting the stomach in two and turning in the blind ends. In a later paper, I shall describe animal experiments undertaken to improve the technic of the method of pyloric exclusion.

The question arises as to how we do the gastro-enterostomy. There is an anatomical status which we wish to obtain—a status which William J. Mayo considers most satisfactory—namely to produce an oblique opening on the posterior wall of the stomach running from a point about the middle of the posterior wall of the stomach down-

ward and to the left. The accompanying illustrations will serve better than any word of mine to give an idea of just how the operation is performed.

I have performed 139 operations on the stomach. Of these sixty-four were for ulcer of the stomach, forty-three were for cancer of the stomach, twelve were for displacement of the stomach, and twenty were for miscellaneous operations of the stomach.

Of these twenty so-called miscellaneous operations, I have performed four gastro-enterostomies for obstructing perigastritis; three gastrostomies for cancer of the esophagus; one gastro-enterostomy for obstruction caused by a large gall-stone in the intestine; two gastro-enterostomies for congenital stenosis; six for anastomoses between the gall-bladder and stomach or duodenum; two entero-enterostomies for vicious circle; one gastro-enterostomy for stenosing interstitial gastritis; and one repair of a stomach which had been damaged by a gun-shot.

The sixty-four ulcer operations which I have performed were on fifty-three patients. The total number of patients would be fifty-four had not one jejunal ulcer perforated in a patient who had an anterior gastro-enterostomy done previously for ulcer and been classed with the non-perforated ulcers as well as with the perforated. In five of these cases there was perforation, and three of these perforation cases died.

In forty-nine of my ulcer operations there has been no perforation. Three of these cases have died as a result of vicious circle. And in fourteen instances I have performed the operation for exclusion.

I cannot state as accurately as I would like the remote results of these operations. Ten of my forty-nine non-perforated ulcer patients have not replied to my inquiries and, consequently, I am unable to say anything about their present condition. Of the thirty-nine whom I can trace, twenty-one call themselves in perfect health and several of them who have recently called at my office show no symptoms of the old trouble. Seven are not in perfect health, but their condition is greatly improved. Five of them consider themselves in perfect health at the present time, although I class them as too recently operated on for the results to be of any value. Three do not seem to be at all improved as a result of the operation, and three have died of vicious circle.

DISCUSSION

Dr. John Sheldon, Kansas City Mo.: In discussing Dr. Bartlett's paper I wish to mention only two things. Mechanical obstruction of the pylorus and the vicious circle. Mechanical obstruction of the pylorus is as Dr. Bartlett told us the sole indication for gastrojejunostomy. When the operation is done for other conditions, dilated stomach, prolapse of the viscera, or growths in the body of the stomach, the results have been unsatisfactory. So, we must look upon gastrojejunostomy as purely a mechanical procedure, indi-

cated only and limited to cases of mechanical occlusion at the pyloric end of the stomach.

The vicious circle I believe in almost every instance to be a mechanical condition, resulting from defective drainage at the site over anastomosis. It is not dependent upon the position of the opening in the stomach, nor so much on the length of the loop proximal to the intestinal opening, but in most instances is directly due to obstruction at the seat of suture.

There is one point in the technic of gastrojejunostomy that in a few instances is responsible for the vicious circle. If in the case of a small jejunum the operator grasps a large amount of tissue in his line of suturing, which will use up from one-half to three-fourths inch of the circumference of the jejunum in making the anastomosis, this leaves only a band of tissue across the opening in the stomach, and as the heavy and folded suture lines kink up when the weight of the intestine pulls upon them, they are forced into the stomach opening, and practically occlude it. In doing every gastrojejunostomy particular care should be taken to introduce the sutures in such a manner as to not use up a large portion of the circumference of the jejunum in making the anastomosis. If this is done and at the same time the intestine is lined up with sutures on each side of the opening in the stomach, it will be practically impossible for the suture lines to form a spur, and plug the opening.

Dr. O. H. Brown, St. Louis: Just one point concerning the treatment of vicious circle. I have seen several cases of gastro-enterostomy which were followed with vomiting. It seemed to me that this came from the collection of bile and mucus in the stomach. I suggested that the patient be fed every two hours or oftener, using a carbohydrate or milk diet and olive oil, in order to keep up a mild peristalsis,—thus carrying the bile down the gut instead of allowing it to collect and regurgitate into the stomach. This has been very satisfactory in the few cases upon which it has been tried.

Dr. E. H. Skinner, Kansas City: I want to emphasize the remarks of Dr. Engelbach upon the value of the *x*-ray in gastro-intestinal diagnosis. Successful application of any of our surgical measures depends upon early diagnosis. We realize more and more the mistakes in chemical analysis of the stomach contents. The more we see of the use of the *x*-ray, the more we realize the limitations of the older methods in outlining the stomach. The bismuth meal is extremely satisfactory and it is pleasing to note that, in 100 cases recently reported by Haudek and Clairmont in Vienna, the diagnosis upon the operating table was identical with the *x*-ray findings. In another series of forty-nine cases, reported by Von Schmieden in Bier's clinic in Berlin, the radiological diagnosis was verified at the operation. This fluoroscopic *x*-ray method of diagnosis is used far more abroad than in America, due no doubt to the fact that few of us have taken occasion to study this method with European fluoroscopists. The influence of an ulcer upon the motility of the stomach and the filling-defects of carcinoma can be brought to your attention and actually visibly demonstrated with the fluoroscopic examination.

Dr. W. G. Moore, St. Louis: There are exceptions to all rules. As in the proposition just presented, the *x*-ray picture and the bismuth meal in connection is not always true to the condition. Recently an *x*-ray picture was returned showing two and one-half inches below the umbilicus considerable dilatation of the stomach. On operating, the surgeon found instead of a dilatation, a contraction of the stomach. The dilatation taken for dilatation of the stomach was an immensely dilated duodenum, and the obstruction was below the duodenum. This made a picture taken for a dilated stomach, when operation showed the true condition, a contracted stomach, and a dilated duodenum.

Dr. Woodson Moss, Columbia: I want to say a word or two here. It may be had taste for me to say this, being on the program in the General Session, but I am going to say it for several reasons. I have been a member of this Association for thirty-six or seven years, and in all that time I have not missed more than four or five meetings of the Association, but during these years I have been benefited and I owe a debt to this Association. You conferred the greatest honor possible by making me its president at one time.

The Chair: The gentleman will please state his point of order.

Dr. Moss: My point of order is, "You have got to quit kiekin' the houn' dawg." (Applause.) I am speaking in behalf of twelve "houn' dawgs," on this program.

The point is this: I have been in this Association a long time, and have never known a set of men treated as discourteously as the twelve men who were to read their papers this morning. We were supposed to go by this program I am holding here in my hand—(Applause)—and without any warrant or authority those twelve men have been pushed aside for this symposium on cancer. I am not saying anything against the men reading these papers, or the discussions. I have never heard better papers; but that is not the question. It is merely a question of fairness to men on the program. We have now, one-half hour to give all these papers. The program says, after the General Session tomorrow if there is any time, we will read scientific papers. You say to these men who have taken time, trouble and expense to prepare these papers, and who are here on time, that they can read them tomorrow if you have time to hear them. In the future who will prepare papers and take chances on such treatment? I say this is not fair, or right, and, as far as I am concerned, I am not going to come here with my paper this afternoon for I would have to crowd someone out of his time and place. I am going to put my paper in my pocket. This does not mean so much to me, an old member, but it does mean something to the other men, some of them present, who intended to read papers before this Society.

MULTIPLE PRIMARY CARCINOMATA OF THE JEJUNUM*

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Until the efforts of the many now engaged in medical research have been rewarded with success and they are able to prove the etiology of cancer, we must feel that our contributions to the literature are of value only as statistics in their relation to cause and cure. Many of the plausible theories from which we are at present compelled to draw our conclusions will in some future time, and may it be soon, be relegated to the chamber of honor in the sarcophagus of yesterday, where so many of our theories have been driven by these knights of scientific endeavor. It cannot be denied that the intelligent, conscientious physician of to-day recognizes in preventive medicine his chief bulwark against disease; that the surgeon desiring the best results, and the greatest per cent. of cures, appreciates keenly the value of

* Read in the General Session of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

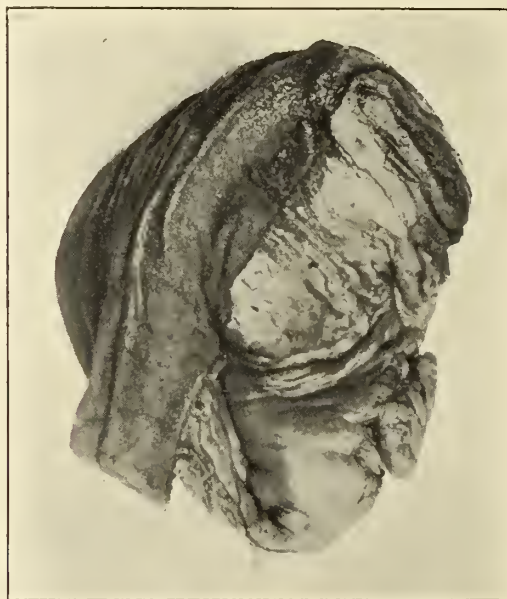
early diagnosis; that the entire profession should bend its efforts toward keeping the patients well, instead of permitting them to partake of the poison that we may administer the antidote. To accomplish this, we must be first armed with the cause, and until that has been provided, one offers, with his contribution, an apology, and casts his mite into the coffer of statistics.

That the occurrence of cancer is on the increase we must admit. Levin¹ in a review of the United States statistics of 1907, found a mortality of 73.1 per 100,000; in 1906, 70.8 per 100,000. While this increase and that found by other investigators may be due to a more careful diagnosis, or a proportionate increase of autopsies obtained, one must believe with those at the front of the fight, that the occurrence of cancer is increasing at an

20,054 cases of cancer, located 10,537 (over half) in the gastro-intestinal tract, with twenty in the small intestine. Stengel⁵ states that the combined statistics of Nothnagel, Zemann, Müller, Bryant and Madyl show that 6.22 per cent. of all intestinal cancers occur in the small intestine. Brill⁶ in collecting reports on 2,128 cases of intestinal cancer, found 2.3 per cent. in the small intestine. (Above statistics quoted from Soper's report.) Ewald⁷ collected 1,148 cases of cancer of intestinal tract, twenty-four of which were located in the ileum. Tuttle² reports 2,432 cases exclusive of stomach in which only sixty-nine were in the small intestine, two in the jejunum. The combined evidence of all reports emphasizes the extreme rarity of jejunal involvement and justifies this report.



Distal tumor (cross-section); occlusion complete.



Distal tumor, showing thickened mesentery.

alarming rate, especially among the class that is continually subjected to the "ever increasing strain of modern life."

Whether it will be finally determined that cancer is of parasitic origin or not, the observations of scientists for many decades have established beyond doubt that those points most frequently subjected to trauma or other forms of irritation are places of selection. The gastro-intestinal tract, according to Tuttle,² provides the seat for 50 per cent. of all cases of cancer. Nothnagel³ reports 3,585 cancer deaths with 343 in intestinal tract, exclusive of stomach, as follows: Jejunum, nine; duodenum, seven; ileum, ten; rectum, 162; colon, 164. G. Heimann,⁴ in

In a recent report of two cases of primary cancer of the jejunum, by Soper,⁸ is recorded a series of forty-three cases of ileojejunal cancer (primary) collected by W. Schlieps⁹ from the literature since the year 1867. To this list Soper⁸ has added twelve cases, found omitted in Schlieps⁹ report, making a total of fifty-seven cases: Thirty-five were males, eighteen females (sex not stated in four cases). The average age is 46 $\frac{1}{4}$ years. In Schlieps series, nineteen were in the jejunum, twenty-two in the ileum, two not definitely located. The location of the growth showed a predilection for that part of the

1. Levin: *Ann. Surg.*, June, 1910.

2. Tuttle: *Carcinoma of Intestinal Tract*, *Jour. Am. Med. Assn.*, Nov. 4, 1905.

3. Nothnagel: *Erkrankungen des Darmes und Peritonaeums*, Wein, 1908.

4. Heimann, G.: *Arch. f. klin. Chir.*, 1899, lvi, 4.

5. Stengel, A.: *Osler's Modern Medicine*, 1908, p. 476.

6. Brill: *Am. Jour. Med. Sc.*, 1904, cxxviii, 824.

7. Ewald: *Da Costa's Modern Surgery*, p. 983.

8. Soper, Horace: *Primary Carcinoma of Jejunum and Ileum; Report of Two Cases*, *Boston Med. and Surg. Jour.*, July 22, 1909.

9. Schlieps, W.: *Ueber das primäre Carcinom des Jejunum und Ileum*, *Beitr. z. klin. Chir.*, 1908, lviil, Series 722, p. 3.

small intestine nearest the stomach and colon, respectively.

Histopathology: The types found in the intestinal tract are scirrhus, colloid, medullary, cylindrical and adenocarcinoma. The latter, the type most frequently found in jejunum and ileum. Soper⁸ has collected nine cases of primary small multiple carcinomata in the jejunum and ileum; viz., Lubarsch,¹⁰ two cases; Notthafft,¹¹ Hammer,¹² Walter,¹³ C. H. Bunting,¹⁴ Ransom¹⁵ and Oberndorfer,¹⁶ two cases, all found accidentally at autopsy. Oberndorfer¹⁶ regards them as simple endothelial carcinomata, without any tendency to infiltrate or undergo metastasis. Large sized, multiple, primary carcinomata have been reported by Hahn,¹⁷ Kukula.¹⁸ C. H. Bunting,¹⁴ Soper⁸ and the author. When large, primary growths in the small intestine are usually annular in type possessing a cartilaginous resistance, and showing through the peritoneal coat a pale yellowish color.

Metastasis and lymphatic involvement occurs late. W. J. Mayo¹⁹ believes that less than one-half of the cases dying from intestinal cancer show lymphatic involvement. In many cases enlarged lymphatic glands in the mesentery draining the involved section show no signs of malignant change.

Symptomatology and diagnosis: There are no symptoms characteristic of primary jejunal cancer in the early stages except those common to chronic, progressive intestinal obstruction. Severe lancinating, colicky pains, following one to three hours after meals, nausea, vomiting in the later stages, anorexia, progressive weakness and emaciation are evident; constipation often alternates with diarrhea. Cachexia is not so evident until late, but progresses rapidly, when obstruction is sufficient to interfere seriously with nutrition, especially if the lesion is in the jejunum or duodenum. When in the former location as in my case, symptoms very clearly resemble pyloric stenosis, with the exception that bile is freely evident in the vomitus. The absence of jaundice almost precludes duodenal involvement and the x-ray bismuth test will eliminate pyloric stenosis.

Palpation of a movable tumor (possible in twenty-two of the fifty-seven cases reported by Schlieps⁹ and Soper⁸) together with the subjective and objective symptoms mentioned above, with or without occult blood in the stool, is sufficient evidence on which to base a tentative diagnosis. Visible peristalsis in jejunal involvement

is a late symptom. The urine during diarrheic stages is considerably lessened in quantity, and in the later stage, indicanuria due to chronic obstruction, is present.

Too little emphasis has been placed on the necessity of daily examination of the stool in all suspected cases, for occult blood. In a large majority of all cases of ulcerative or malignant processes in the intestinal tract, there is sufficient injury to the mucosa to produce minute hemorrhages, the detection of which (by the delicate guaiac hydrog-dioxide or aloin—turpentine tests) is of such vital import in reaching an early diagnosis. In no other part of the organism is an early diagnosis so essential, so compulsory, from the standpoint of radical cure, as in the intestinal tract, and in no other part is the



Proximal tumor, mucous surface.

neglect so general, the treatment so empirical and procrastinating as here; yet nature is profuse in her efforts to attract our attention to her ailment, and unless the patient himself calls attention to the peculiar color of the stool, in a fair majority of cases this beacon light of diagnosis is unobserved. One should examine the feces first and then look for other clinical symptoms.

Case Report: Patient entered medical service of Dr. Wm. Engelbach at St. John's Hospital on June 3, 1911. Verbatim copy of case history follows: "Mr. M. E. C., aged 53, occupation, waiter. Indefinite attacks of 'indigestion' 20 years ago. Was then free from stomach symptoms up to 5 or 6 years ago. At that time felt depressed and would have attacks of pain and cramps in the upper abdomen. These commenced from one-half to one hour after eating. Diarrhea with all attacks; defecation painful; diarrhea began after abdominal pain. Vomited frequently with

10. Lubarsch: Arch. f. Path. Anat., 1888.

11. Notthafft: Deutsch. med. Wchnschr., 1896, No. 43.

12. Hammer: Prager med. Wchnschr., 1896, No. 20.

13. Walter: Reported by Soper (loc. cit.).

14. Bunting, C. H.: Bull. Johns Hopkins Hosp., 1904, xv, 389.

15. Ransom, W. B.: A Case of Primary Cancer of Ileum, Lancet, London, 1890, ii, 1020-23.

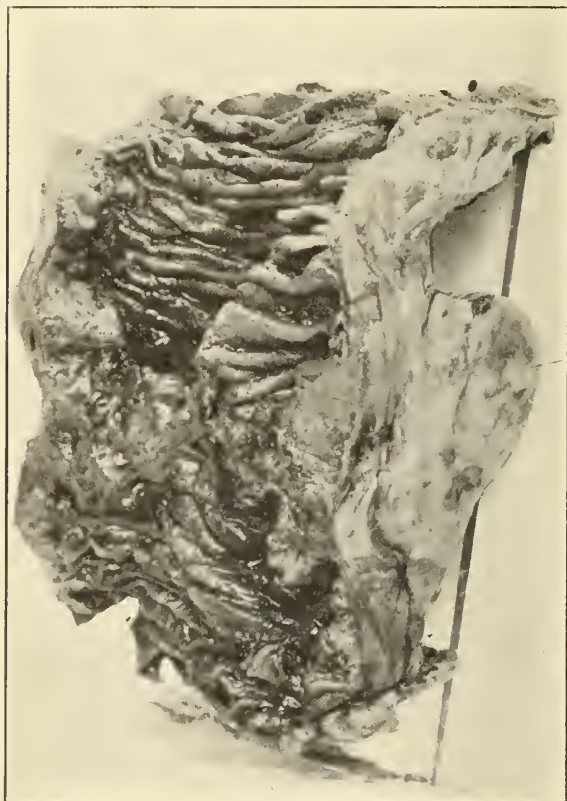
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his attacks and this always gave relief. Pain frequently became general over entire abdomen. Feces were black, tarry and contained mucus following the attacks. Felt weak after diarrhea stopped but rallied in a few hours and could eat anything without causing pain. Noticed yellow discoloration of skin on few occasions. During some attacks patient fainted. Lately has been constipated and has vomited with all attacks; vomiting gave relief. Pain came on from one to two hours after eating. It seemed to him that if the food got below the level of the umbilicus he had no symptoms, but if it did not get below that level, he would have to vomit. He has not tried to eat anything but eggs and toast for five months. Constipation began five months ago. Black stools noticed on four different occasions since then. No symptoms or vomiting between attacks. Says he has gained 10 or 12 pounds since June. Com-



Proximal tumor, showing lymph-gland (cancerous) x.

plaints of no symptoms in any other part of the body. Positive physical findings: Stomach on inflation extends about one finger below and two to right of umbilicus. No mass palpable. Stomach empties itself in six hours. Stomach analysis: anacid contents without Oppenheimer bacilli or occult blood. Feces contained occult blood on daily examinations. No ova, mucus or parasites. Diagnosis: Carcinoma of the pylorus not obstructing pylorus. Patient refused operation and left the hospital. On Feb. 18, 1912, patient re-entered the hospital with same symptoms as on previous entrance, only exaggerated. Has been vomiting almost everything he ate for four days and nights. Vomits about an hour after eating and this immediately relieves pain. Stomach peristalsis distinctly visible, reaching about three fingers below umbilicus and about same to right. No tumor palpable; stomach content and feces presented same findings as on first visit. No other new abdominal findings."

Patient referred to surgical service on Feb. 19, the day following his return to the hospital. Persistent but futile efforts were made before anesthesia to palpate tumor which we were reasonably sure was present. The distension of the epigastrium was marked and corresponded with that obtained several months before by inflation, reaching two inches below umbilicus. After anesthesia I was able to palpate distinctly a tumor the size of an orange, evidently lying to the left of the median line, dorsal to the distended stomach and freely movable.

Incision through right rectus. Gall-bladder and duct normal and free from adhesions. The stomach was greatly distended, but careful examination revealed no tumor, no adhesions, no enlarged glands, nor evidence of chronic ulcer. The pyloric ring admitted three fingers with ease; duodenum was fully three inches in diameter and its walls markedly thickened. This dilatation was traced down to a point 18 inches below the ligament of Treitz when a mass, orange size and free from adhesions, was delivered. The jejunum distal to this tumor being still dilated, the gut was traced and a second tumor slightly smaller than the first and four feet below it was found; no adhesions present. Further search revealed no additional growths and no palpable evidence of any other visceral involvement. The mesenteric glands in the neighborhood of both tumors, were enlarged. A rapid double resection, using the suture above and a Murphy button below, was then done, care being taken to include all enlarged glands. The patient reacted nicely and left hospital in good condition 22 days later.

Pathological report by Dr. Ralph Thompson follows: "Sections from growth in the small intestine show microscopically, marked epithelial proliferation and degenerative changes. The inner part of the sections are composed of tubular follicles somewhat resembling intestinal mucous membrane and separated by a very scant connective tissue stroma. In places the overgrowth of cells is such as to entirely destroy the glandular picture so that a whole field will present nothing but a solid cellular mass. The cells comprising this growth are very irregular both in size and in shape, and the nuclei vary greatly in shape. Many mitotic figures are seen. In the necrotic areas large masses of bacteria are found.

"An enlarged lymph node found adjacent to the growth shows microscopically a replacement of the lymphoid structure by the cancer cells previously described, only a small amount of normal lymphoid tissue being found at one edge of the gland. Diagnosis: Adenocarcinoma, small intestine; metastatic carcinoma mesenteric lymph node."

From a postoperative viewpoint it is not difficult to coordinate all the symptoms present in the patient to the pathology found at operation. The relative rarity, however, of this type of involvement, and the fact that all the symptoms exhibited could be justly applied to a non-obstructing gastric carcinoma, justified the diagnosis made at his first admittance. The symptoms present at the time of his operation were those of complete obstruction, and the dilated duodenum and jejunum were by virtue of the relaxed pylorus, so nearly a part of the stomach cavity, that the symptoms were virtually those to be expected in a complete pyloric obstruction.

The patient has, since discharge, been improving in strength and weight, eating freely and complaining of no inconvenience. Yet there is still present a cachexia and a relative lack of strength that lead us to feel that some metastasis

escaped our observation, and that it will eventually claim its own. Optimism in the late surgical treatment of cancer, sounds well in the convention hall, but far too often it outlives the patient; yet this one type, the annular adenocarcinoma, when an early diagnosis can be made or an exploration obtained, with prompt and efficient surgical interference, offers a much larger percentage of cures than we are at present attaining.

If I were limited to one suggestion in the treatment of all obscure abdominal complaints, it would be to "open and look," and how much more imperative it is, when the continued presence of occult blood is daily condemning our delay. We bow with respect and gratitude to our brother internists who have in recent years made such rapid strides in diagnosis, yet we must all admit that even in the most scientifically conducted clinics of the world, the incision is awaited with apprehension and far too often reveals our failure to properly interpret Nature's appeal. Happily for all, the present trend is toward an intimate cooperation of the conscientious internist and surgeon, both aspiring to an early diagnosis, the greatest factor in reducing mortality, the criterion by which our ministrations should be judged.

Metropolitan Building.

HEAD NOISES OR TINNITUS AURIUM*

JOHN S. WEAVER, M.D.
KANSAS CITY, MO.

It has been estimated that 25 per cent. of all adults have some affection of the hearing, and that two-thirds of all ear diseases have head noises or tinnitus aurium as a symptom.

Most of our patients, and a great many general practitioners, scarcely think of tinnitus except as a symptom of actual disease in the ear. It will be shown that it also exists because of some variations of anatomical parts with which an individual may be born; and further, that it occurs as a warning symptom in some general diseases, particularly of the heart, blood-vessels and brain, where, if the ear be involved at all, it is of minor importance. Although generally only heard by the patient, it can in some cases be heard by an observer with a stethoscope or the unaided ear.

The following is a more or less complete abstract of the English literature on the subject of tinnitus for the past eleven years.

Kerrison¹ classifies the causes of tinnitus as follows: 1, conduction sounds; 2, blood sounds; 3 labyrinthine sounds; 4, neurotic sounds; 5, cerebral sounds.

* Read before the Eye, Ear, Nose and Throat Section of the Jackson County Medical Society, Kansas City, Mo., May 9, 1912.

1. Kerrison: Tinnitus Aurium, Laryngoscope, December, 1901.

1. *Conduction sounds* are due to impairment of some part of the sound-conducting apparatus. Sounds arising physiologically near the ear (blood-current), which are not normally perceived by the ear, are perceived if the *passage of sound out of the ear* is interfered with.

2. *Blood sounds* are of local or general origin. Tinnitus is not necessarily a sign of disease. Anomalous projections of the carotid canal or the jugular bulb into the tympanum may produce it. Temporary blood sounds may follow violent emotions, mental exertion, etc. Persistent blood sounds may accompany constipation, subacute gastritis and pelvic disorders. Valvular heart disease and intracranial aneurism sometimes give rise to blood sounds which may be heard objectively.

3. *Labyrinthine sounds* are likely to be present due to lowering of labyrinthine pressure after a severe hemorrhage. Raising of labyrinthine pressure resulting in tinnitus would be likely to be caused by certain drugs (quinin, salicylates, amyl nitrite) and tympanic lesions. Conditions tending to produce general venous congestion such as chronic heart and kidney disease, chronic anemia, pulmonary phthisis and emphysema may cause tinnitus.

4. *Neurotic sounds* are due to increased irritability of the auditory nerve. This hyperesthesia may be caused by toxins (in chronic Bright's disease and acute infectious diseases) or may be a part of a general neurasthenia or nervous exhaustion (following overwork, dissipation or prolonged grief).

5. *Cerebral sounds* are due to cortical irritation. They occur in epilepsy. "Those who hear voices, words and conversations are either mentally diseased or become so later." (Gruber.)

Bryant³ details treatment for various forms of tinnitus as given in his classification at the end of his article, but I must confess that even a third reading leaves me in the dark on the meaning of some of his terms. His classification is as follows:

CLASSIFICATION

I. OBJECTIVE

1. External:
 - (a) Vascular,
 - (b) Pharyngeal,
 - (c) Respiratory,
 - (d) Muscular.
2. Internal:
 - (a) Tubal,
 - (b) Tympanic.

3. Bryant: Treatment of Tinnitus Aurium, Laryngoscope, July, 1904.

II. SUBJECTIVE: (A) PHONETIC

1. Exaural:

- (a) Vital,
- (b) Diplacusic,

2. Endotic:

- (a) Circulatory,
- (b) Mytoltitic,
- (c) Movement,
- (d) Somatic.

(B) NEUROTIC

1. Peripheral: Reflex.

2. Otic:

- (a) Conduction.
 - I. Myringal,
 - II. Tubal,
 - III. Ossicular,
 - IV. Mucous,
 - V. Contraction,
 - VI. Adhesion,
 - VII. Fenestral,
 - VIII. Traumatic,
 - IX. Meatal;
- (b) Reaction.

3. Sensory:

- (a) Nerve tinnitus,
 - I. Peripheral,
 - II. Trunk,
 - III. Proximal,
 - IV. Associated;
- (b) Psychopathic.
 - I. Central,
 - II. Illusional,
 - III. Hallucinational,
 - IV. Delusional.

J. J. Kyle⁴ gives the classical causes of arteriosclerosis as syphilis, laborious occupation, alcoholism, lead poisoning, infectious fevers, auto-intoxication, vasomotor disease from central disturbances, heredity and lack of balance of ductless gland secretion.

Arteriosclerosis may be local or general in character and thus a sclerotic change in the arteries may be limited to the ear alone, and may be unilateral or bilateral in character.

The pathology of general arteriosclerosis is well understood, but the changes noted in the labyrinth are of more special interest. The terminal arteries in the labyrinth are so small that any structural change is quickly manifest in the nerve structures. As soon as the nutrition of the basilar membrane and the organ of Corti is partially or completely cut off there is an atrophy of sensory auditory cells and connective tissue proliferation of the structures. The same change may be observed in the nerve endings of the vestibule and the semicircular canals.

The essential points to be accentuated in this paper are the early symptoms of arteriosclerosis as manifested in the ear, and the necessity for careful general examination in such cases.

The ear symptoms which should direct our attention to a local or general circulatory disturbance are unilateral or bilateral tinnitus, slight and progressive deafness, loss of air and bone conduction, dizziness sometimes early in the disease, and in the later stages of the disease sometimes hallucinations of hearing. The ear symptoms vary according to the extent of the sclerosis.

The middle-ear symptoms will not be considered other than to call attention to the diagnostic value of the arcus senilis of the tympanic membrane present in so many cases of arteriosclerosis.

Bishop⁵ says there is no class of individuals subject to more supposed local disease than those who suffer from a constitution of low arterial tension.

It is surprising how little tension there can be in the radial pulse without the patient suffering from any symptoms of any circulatory disease. This low tension in otherwise apparently healthy individuals is undoubtedly a departure from the normal.

Experience has shown that nothing is gained with these individuals by the use of drugs to increase the arterial tension. Cold bathing is found by experience to be unsatisfactory; such subjects do not react. The most important element of treatment is systematic exercise.

In this class of cases I have found ear symptoms consisting of a sense of fullness, with slight tinnitus at times, which have cleared up entirely under the regular regime.

His conclusion Number 3 is: Tinnitus is found in connection with high blood-pressure and also with low blood-pressure, and while in both instances the symptom is relieved by measures which regulate the circulation, the most striking results of treatment are obtained at the present time in instances of low arterial tension.

In the discussion following this article, White reported twenty cases of tinnitus with tension from 100 to 200. Four were synchronous with the pulse, five had low tension, two were women and all were under 35 years.

NOTES ON DIAGNOSIS

Kerrison¹ says the sources of information in making a diagnosis of tinnitus are: (a) history, (b) physical examination, (c) functional examination, (d) disease elsewhere in the body and (e) effect of drugs on the tinnitus. That a pitch above 256 V. S. suggests a labyrinthine involvement, and below that a tympanic involvement. That the same functional tests which would locate

4. Kyle, J. J.: A Study of Ear Symptoms in Arteriosclerosis, with Special Reference to the Labyrinth. *Ann. Laryn., Otol. and Rhinol.*, June, 1907.

5. Bishop, L. S.: The Ear Symptoms of Cardiovascular Disease, with Special Reference to Low-Pressure Cases. *Tr. Sec. on Laryngol. and Otol. A. M. A.*, 1908.

the cause of an impairment of hearing, may be used in our search for the cause of tinnitus.

The particular form the sound assumes is of no great importance.²

Tinnitus occurs more frequently in dry forms of chronic ear disease than in chronic suppurative cases (Politzer).

Tinnitus with defective hearing may naturally be concluded to come from the ear itself.⁵

Bilateral equal tinnitus indicates a constitutional cause, while bilateral unequal tinnitus indicates a local cause.³

Too little attention is paid to the general constitutional state.⁶

PROGNOSIS

Harris² says that the outlook for continuous tinnitus of long duration is not a particularly bright one. Of 824 cases of aural disease, 321 had tinnitus. Of these 321, 137 were treated. Cures were secured in fifty-eight cases, forty-six were improved and thirty-three not improved. The cures were probably in acute cases, though he does not say so.

NOTES ON TREATMENT

Kernison¹ says: No single plan of treatment will ever be found applicable to all the different forms of tinnitus, and the results must always be proportionate to the thoroughness of the search for the underlying cause.

For the cases with a predisposing nose and throat factor practically all authors agree that the very earliest attention should be given thereto.^{9, 10} This being corrected, there remains the other local treatment such as inflation, bougieing, pneumatic massage and heat. "Ton-Be-Handlung" and electricity in the form of galvanism, electrolysis and high frequency currents seem to have passed into oblivion. Drugs most frequently used are strychnin, potassium iodid, nitroglycerin, potassium bromid and tincture of digitalis. Drugs are very disappointing.²

Climate.—Barr⁶ says that humid sea air is certainly harmful while dry, bracing mountain air is beneficial. Most of the advocates of climate seem to have acquired a residence in Colorado.^{7, 8}

Tinnitus sometimes becomes so severe as to jeopardize the patient's reason, especially when associated with vertigo. Operations of a radical nature must then be considered. Barr (*Jour.*

Laryngol., Rhinol. and Otol., March, 1904) records a case of pulsating tinnitus which was not relieved by section of the external carotid and later the postauricular artery. Relief from severe tinnitus, and vertigo in a woman of 26 was secured by Lake (*Jour. Laryngol., Rhinol. and Otol.*, May, 1905), and by Yearsley (*Lancet*, September, 1908) in a man of 47 by destroying the semicircular canals and vestibule in the affected ear, which was deaf in both cases. W. S. Bryant (*Jour. A. M. A.*, Dec. 9, 1905) reports special study on intracranial excision of the auditory nerve for persistent and intractable tinnitus in cases where the same is peripheral.

OBJECTIVE TINNITUS

These curious cases form a class almost by themselves and are very rare.

Weil (*Laryngoscope*, March, 1904) reports a case in a female of 23. Synchronous with the heart beat, but no anemia, heart or lung disease or aneurysm. No impairment of hearing. In one ear only (right). Three years duration. Disappeared on pressure of the carotids or on mastoid. Thinks it is a disturbance of the vasomotor equilibrium.

Wells (*Jour. A. M. A.*, Jan. 21, 1905) reports two cases and states that these cases are either of vascular or muscular origin.

McBride (*Edinburgh Med. Jour.*, July, 1905) reports a case in a man of 57, accompanied by sudden deafness supposed to be due to sudden aneurysmal dilatation of an intracranial vessel.

Tawes (*Jour. Laryngol., Rhinol. and Otol.*, October, 1909) reports a case in a man of 27, following an injury to the nose. Disappeared in eleven days. In the same issue Tilley reports a case in a girl of 13.

Yates (*Jour. Ophth. and Oto-Laryngol.*, February, 1911) reports a case associated with hyperthyroidism.

I have presented before this society (Dec. 14, 1911) the case of a girl of 20, which began as an objective tinnitus, but finally the throat muscle spasms completely overshadowed ear symptoms. Spasms included at times one or all of the palatal, lingual, pharyngeal and extralaryngeal groups of muscles. They occurred at irregular intervals particularly under excitement and could be seen and heard at 15 to 20 feet or more. They ran about three or four to the second, were temporarily controlled by pressure on the sides of the larynx and were finally improved though not cured by removal of a nasal spur. Her heart-rate which had been 120 to 140 before operation dropped to 90 to 100 afterward. Her mother's heart-rate was normally about 100 and she also had a spur on the same side of the septum. There was no goiter or heart lesion in either mother or daughter.

1221 Rialto Building.

2. Harris: Tinnitus Aurium, *Laryngoscope*, March, 1902.

6. Barr: Tinnitus Aurium, *Jour. Laryngol., Rhinol. and Otol.*, September, 1909.

9. Murray: How Far May Conditions in the Nose and Throat Be Responsible for Middle-Ear Disease, Tr. Sec. on Laryngol. and Otol., A. M. A., 1911.

10. Barnhill: What Improvement Can Rationally Be Expected from Treatment of the Nose and Throat in Middle-Ear Deafness, Tr. Sec. on Laryngol. and Otol., A. M. A., 1911.

7. Patterson: The Climate of Colorado Etiologically and Therapeutically Considered, *Laryngoscope*, September, 1908.

8. Pattee: The Influence of Climate on Middle-Ear Diseases and Their Predisposing Causes, Tr. Sec. on Laryngol. and Otol., A. M. A., 1911.

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Missouri State Medical Association

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AUGUST, 1912

EDITORIALS

CRAWFORD COUNTY MEDICAL SOCIETY ORGANIZED

On July 25 the Crawford County Medical Society was organized and made application for a charter from the state association. Ten charter members were present at the organization meeting, while assurances were received from those who could not attend that they would support the society and join at the first opportunity. This leaves seven counties still unorganized.

For some time the physicians of Crawford County have been agitating the question of organization and affiliation with the state association. They have fully realized that the absence of a society in the county was a detriment to their progress and to the conservation of the public health, but certain circumstances have hitherto prevented the consummation of the hopes and desires of the best-informed physicians from having a county society fully identified with the great majority of the profession in its onward march.

Probably no society ever started its work with a more harmonious and thoroughly enlightened spirit as to the objects, intents and purposes of organized medicine than did Crawford County at its initial meeting. Not a single note of disharmony, not the slightest semblance of ill-will or doubtfulness of the benefits and importance of association and affiliation in society work, disturbed the proceedings. We predict a useful and beneficial career for Crawford County Medical Society. We extend a warm welcome and the hand of good-fellowship to the new society, and we hope this sentiment will be conveyed to the new society by members from other parts of the state.

The President, Dr. Robert M. Funkhouser, and the Secretary of the State Association, were present at the meeting and assisted in completing the details of organization. Dr. Funkhouser addressed the gathering in his usual earnest, gentle and convincing manner. He pointed out the rocks of discord, jealousy and prejudice which have wrecked societies in the past and prevented good men from associating themselves with the onward and upward movement. He told of the kind of influences that are inimical to the progress of

organized medicine and warned against placing credence and confidence in the statements of persons whose antagonism to the growth of our association is grounded solely on selfishness, ignorance, deceit and fraud. Through organization, he said, the spot-light of knowledge is thrown on every phase of the physician's practice, including the drugs he uses and the materials of his art; and, as always, the workers who have found profit and gain in the ignorance and credulity of the practitioner are running to cover whilst crying persecution, oligarchy, machine control and what not.

Dr. Goodwin, Secretary of the State Association, informed the members of the various activities of the organized profession and of the workings of the county society in its relation to the state association. He specially urged faithfulness in holding meetings and of attendance by members as frequently as they possibly can. The country doctor, he said, is the backbone of the organization and the county society its foundation. He pointed out the many ways in which the society would be profitable for the members and helpful to the people and complimented the physicians in Crawford County for the strong spirit of enthusiasm shown in the subject of society work.

Dr. Waller J. Parker, of Berryman, addressed the meeting in a most enthusiastic and entertaining manner. He predicted a bright future for the society and appealed to every physician in Crawford County to get in line with the progressive spirit of the times to establish a closer spirit of fraternalism and friendship among the members of the profession and lift the practice of medicine higher and higher in the estimation of the people.

We take the greatest pleasure in presenting the following charter members of the Crawford County Medical Society, a component society of the Missouri State Medical Association, and bespeak for them a cordial reception by the whole organization:

J. T. Coffee, Steelville; W. S. Cox, Cuba; R. H. Finley, Cuba; A. H. Horn, Steelville; G. G. A. Herzog, Cuba; E. L. Hume, Bourbon; J. H. Martyn, Cuba; J. H. Parker, Steelville; W. J. Parker, Berryman; J. L. Walker, Steelville.

The officers of the society are: President, J. T. Coffee; vice-president, W. S. Cox; secretary, E. L. Hume. Meetings will be held monthly, the next one to be at Steelville on August 8, and thereafter the society will meet alternately at Cuba and Steelville.

THE HOSPITAL SCANDAL AT ST. LOUIS

The scandal of the hospital management in St. Louis could not possibly have occurred at a more inopportune time. It is a question whether the conditions are any better under the present order

than they were under the old, at least in respect of the advantages of the hospital to the public.

That such a gross mistake could have been made as in the case of the Maggos child but emphasizes the fact that the price of efficiency is eternal vigilance and ironclad systemization.

The Hospital Board erred grossly when it failed to censure the proper person responsible for lack of order and method until popular clamor forced a merited rebuke. It is unjust to expect or to require the Hospital Commissioner to be held responsible when he is not allowed to have a vote. The hospital facilities should be one of the biggest assets that the city possesses, especially in placing St. Louis on the map, scientifically and medically; at present that city is conspicuous by its absence in these fields. There is no reason why the material at the hospital should not be used for the benefit of humanity and every reason why it should not be used for the benefit of a few, clinically or for research work. But the first requisite must be the divorcement of the hospital system from politics and nepotism, from pulls and pushes. The hospital opportunities must not exist for the professional benefit of the visiting staff solely, nor used for the advancement of family and friends, medical or non-medical. There are sufficiently well equipped physicians *ubique* in the community to select from without confining the choice to narrower limits.

Members of the hospital staff retain for themselves, as a rule, all the opportunities that the institutions offer, which is a very unwise policy. If the law does not permit the use of the institutions for teaching purposes it is high time for a change, so that suffering humanity may be the principal beneficiary. Disease must be dealt with not only for the purpose of aiding and restoring the health of the one afflicted, but also in the interest of all other individuals and of the community itself.

The medical members of the hospital board are there for the purpose of administering the medical affairs of the hospital system in the best interests of the people and not for the purpose of covering up any neglect or deficiency of the medical officers nor to advance the personal ambitions of any member of the profession. The pride of opinion should not dominate and a little brief authority should not produce cranial osteoporosis. The hospitals belong to the people and to the people the hospital board owes an accounting.

MEDICAL EDUCATION IN EUROPE

REPORT OF THE CARNEGIE FOUNDATION FOR THE
ADVANCEMENT OF TEACHING

The Carnegie Foundation for the Advancement of Teaching has issued a second report on medical education. This report is concerned with the status of medical education in Europe; the

report of two years ago dealt with medical education in the United States and Canada.

Both reports were planned primarily for the benefit of this country; that we might learn from the criticism the report had to offer what the weak points in our system were, and where and how the remedy for delineated deficiency was to be applied. In both reports the weight of the criticism is against conditions of medical education as they exist on this side of the sea.

Roughly considered the indictment against medical education in America resolves itself into three counts:

1. The number of schools that are maintained for the advantage of their proprietors and the appalling lack of proper facilities for operation.
2. The prevalent disregard by the medical school of general educational requirements for entrance.
3. The absence of cooperation between the hospitals and the medical schools.

The indictment is sustained by the evidence. In fact the evidence tends to show that conditions of medical education in the United States are unparalleled in any other civilized country. The intelligence and the criticism contained in the report of the Carnegie Foundation are most timely, and, while the profession at large has not been unaware that things were far from what they should be, it has not been sufficiently concerned with the vital importance of the question, and the problem that the situation presents, and it has very probably failed to grasp the fact that things have reached a very bad pass in this country.

The commercial spirit which has gripped the heart of the nation is probably the first and the primary cause of the deplorable state of affairs to which we have come in medical education. In many instances the result has been an indirect consequence of the commercialism which has overwhelmed us; the financial situation reacting unconsciously in the degradation of given institutions; in others, doubtless, the spirit of greed has been the cause. But be that as it may, and after we have considered the faults that obtain in the systems of medical education existing in the representative countries of Europe, our own situation when contrasted with European conditions furnishes ample justification for our blushes—and they are not the blushes of modesty either.

The usefulness of the proprietary school is a thing of the past. To-day, owing to the development which has attended the growth of medical science, it is essential that the medical school maintain affiliation with a university. The two reasons behind this are: the necessity for proper endowment to provide and sustain equipment and maintenance, which entail greater financial resources now than ever before; and, the importance of a sufficient preliminary grounding in educational generalities and medical prelimina-

ries, particularly physics, chemistry and biology. From a practical standpoint the medical school having no connection with a university of wealth and influence does not and cannot provide these essentials.

The inferior output of the medical system in America is largely due to the numerous proprietary schools that dot the land. These institutions are utterly unable to furnish the essentials of medical education without which one cannot approach medicine as it exists to-day with any hope of successful conquest. The dimensions of medical science have lengthened and broadened; it is more formidable than at any time in history, and its mastery calls for a preparation more varied and comprehensive than was ever demanded by any profession or calling.

There are a number of medical schools that possess sufficient in the way of endowment, but their entrance requirements are so low as to destroy the advantages offered by a sufficient physical establishment.

Perhaps it is not to be wondered at that the hospitals generally regard the student with wariness and do not welcome him to their wards effusively. Let the medical student come with a larger preparedness and there is little doubt that this question will remedy itself.

These comments do not exhaust the ground covered by the report. An editorial can do no more than cross the threshold. In conclusion we wish to point out that during the past ten years there has been a steady improvement in the matter of elevating the school itself, in raising the standard of entrance requirements and in eliminating the inefficient school. But even now, despite the able campaign that has been carried forward for the most part by the American Medical Association, there appears from time to time an insufficient medical school.

But conditions are encouraging. The profession at large is awake and interested in the movement of educating the public; and when the people see how vitally their interests are concerned in the maintenance of capable medical educational institutions, the low grade school will disappear and the diploma will be an impossibility.

THE ORGANIZATION STORK ACTIVE

We take pleasure in announcing the advent of a new county society, the Crawford County Medical Society. On July 25, 1912, at 2 p. m., the stork presented the Missouri State Medical Association with a bouncing new society, the natal vigor of which promises a long and useful career. The society was christened with due ceremony, the president and secretary of the State Association assisting.

The Texas County Medical Society is expecting the stork on August 8, with the councilor of the

district and the secretary of the state association as accouchers. All arrangements have been made for the birth of this new addition to the family of component societies.

NEWS NOTES

THE Medical Society of the Missouri Valley will meet in Council Bluffs, Ia., September 5 and 6.

DR. HAL S. FRAZER, of St. Louis, and Miss Lila Simpson, of the same city, were married at the home of the bride's parents on June 11.

DR. FREDERICK WALTER, of Perry, and Dr. H. G. Dallas, of Augusta, have been appointed to the medical staff of the Fulton State Hospital.

DR. (?) C. H. CARSON, famous founder of the fearful temple of health in Kansas City and dispenser of tissue paper nightie tags, is dead. *R. I. P.*

Two druggists were fined \$24.700 in the Boone County circuit court recently for violation of the local option law; they were assessed on eighty-two counts.

DR. C. S. WILSON, of Kirksville, was elected president of the North Missouri Medical Society. The semi-annual meeting will be held in Kansas City, October 17.

A NEW hospital will be started at Carrollton as soon as alterations and improvements can be made in the building purchased. Drs. H. W. Tull and R. F. Cook have charge of the undertaking.

THE Sedalia Board of Education will enforce the rule established last year to require all teachers in the public schools to pass an examination of their physical condition before beginning their duties in the fall.

THE Missouri Druggists at their annual meeting at Pertle Springs, June 12, recommended a law creating the office of drug store inspector to be under the supervision of the state board of pharmacy.

DR. GEO. C. MOSHER, of Kansas City, was honored by the Oberlin College recently when that institution conferred on him the degree of Master of Arts in recognition of his distinguished work in obstetrics.

A MUNICIPAL slaughter house to cost \$10,000, modern in every respect and arranged for the joint use of all meat dealers, is the remedy suggested by Dr. E. W. Steele, of Carthage, for the correction of the insanitary and filthy condition of slaughter houses as they now exist in that city.

G. H. JAEGER, a chiropractor in Columbia, has quit the business and agreed to cease attempting to befoggle the people, after the Boone County Medical Society had him arrested for practicing without a license. The jury convicted him on several counts and by compromise the others were dismissed.

DR. F. W. BURKE, of Laclede, has been appointed a member of the State Board of Health in the place of Dr. M. P. Overholser, resigned. Dr. Burke has been a member of the Association for many years and will make a capable and efficient member of the board. He is Secretary of the Linn County Medical Society.

PETTIS County Medical Society has adopted the practice of delivering lectures to the parents and children in the public schools of Sedalia. Members of the society are assigned to various schools, the subjects of the lectures being "Sanitation," "The Dangers of the Common House Fly and How to Destroy It."

THE state board of health announces that it will discontinue examining urine, tissues, stomach contents and feces. The reason assigned is that the increasing number of examinations have made it necessary to limit the service of the laboratory. The total number of examinations for the first three months in 1912 was 928.

J. W. FENTON and G. W. Otto, two notorious chiropractors in Springfield, were arrested for practicing medicine without a license. The county medical society laid the information before the prosecuting attorney, Mr. Jas. H. Mason, but no action resulted until the society had carried the complaint to the Attorney-General and the Governor.

GREENE County Medical Society has set aside the first Friday night in September each year

for an open meeting, at which a subject of public interest will be discussed by members of the society and citizens. The society has also set aside the last meeting night in June each year for a "smoker night" and each member is permitted to bring a friend.

THE next annual meeting of the Medical Association of the Southwest will be held in Hot Springs, Ark., October 8-10. The headquarters will be at the Arlington Hotel. Each year these meetings have increased in strength of program and attendance. The well-known hospitality of the fraternity of Hot Springs is all that is needed to assure a thoroughly enjoyable social time. If you wish to present a paper write Dr. F. H. Clark, Secretary, El Reno, Okla.

MISCELLANY

DON'T SIGN

ST. LOUIS, June 22, 1912.

Dear Sir:—It has recently come to our notice that a representative of certain opticians who are desirous of having the next legislature pass an optometry bill, has been approaching physicians with a view to secure their signatures endorsing this pernicious legislation.

The optometrists are merely opticians who desire to secure recognition by the state for their so-called profession. In states having optometry laws, these men have assumed professional airs and titles, and in the eye of the average layman are not distinguished from the regular M.D.—in other words, their scheme is to enter the medical profession by a side door. They make the specious plea that they desire to regulate the practice of optometry, a plea which has led some unthinking physicians to endorse this movement.

Two years ago a similar attempt was made to secure signatures from members of the State Medical Association, much effort in this direction amounting to nothing, as the Secretary, Dr. E. J. Goodwin, warned the profession in time to prevent the commission of such a blunder.

It is to be hoped that no self-respecting physician will affix his signature to such a petition.

Respectfully,

The Public Health and Legislation Committee,
St. Louis Medical Society.

The above letter was sent to every member of the St. Louis Medical Society. No doubt petitions of the kind are being circulated in other parts of the state. We urge our members to refuse to sign any kind of petition. It is certain that attempts will be made to pass some vicious

legislation at the next General Assembly and all attempts to obtain signatures of doctors to papers purporting to be innocent efforts at improving medical legislation should be sternly ignored. There is no assurance that the signatures will be attached to the papers signed, as it is an easy matter to transfer these signatures to quite a different paper. The safest plan is to sign no petitions unless they emanate from reliable and well-known sources—and then you better investigate before signing.—EDITOR.

SOCIETY PROCEEDINGS

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY

The Cape Girardeau County Medical Society held its regular meeting at Jackson, June 10, at 8:00 p. m.

The application of Dr. Geo. A. Blaylock, of Silverlake (Perry County), was reported favorably by the board of censors and upon a vote of the Society he was elected to membership.

Dr. R. T. Henderson gave interesting remarks on artificial feeding in infants, with the reporting of several cases from practice where the modified cow's milk did not agree with the child and some proprietary food did, and vice versa. His experiences were concurred in by others present.

Other members on the program were absent, so the Society adjourned.

E. H. G. WILSON, M.D., Secretary.

CARTER-SHANNON COUNTY MEDICAL SOCIETY

The Carter-Shannon County Medical Society met at Winona, June 25. Dr. Wm. Fulton, president, in the chair. The meeting was fairly well attended.

Dr. R. H. Watson, of Grandin, was elected to membership.

Interesting case reports were as follows:

"Cerebrospinal Meningitis," by Dr. T. W. Cotton, of Van Buren. This case has reached a chronic stage, after having had several injections of Flexner's serum, and recovery seems yet problematical.

A case of fractured scapula at upper third was reported by Dr. Watson. The case was an interesting one, seemed rather unique, and was discussed by the members present.

A case of injury to shoulder joint, caused by a fall in boy 8 years old, was presented by Dr. J. A. Chilton, which proved rather interesting, though rather puzzling.

Withal, the meeting was a decided success and was characterized by a spirit of professional interest.

J. A. CHILTON, M.D., Secretary.

CASS COUNTY MEDICAL SOCIETY

The Cass County Medical Society met in Harrisonville, June 13, at 1:30 p. m.

The following members were present: Drs. H. A. Brierly, Chaffin, Crawford, Fair, Long, Triplett and Wright.

The following scientific program was carried out:

"Dermatitis Seborrhoea," by Dr. D. S. Long; "Obstetrical Difficulties," by Dr. W. K. Wright; "Report of State Medical Association," by Dr. W. F. Chaffin and Dr. H. S. Crawford.

Dr. J. S. Triplett reported a case that came under his observation, and the members were all requested to make a diagnosis and give their reasons for the same. The subject provoked quite an interesting discussion and added greatly to the success of the program. This will hereafter be made one of the features of the program, and the members are requested to bring to the society meetings some of their knotty cases and let the members present discuss them and make a diagnosis. The entire program was of great interest and every one present expressed himself as being well repaid for his attendance.

H. S. CRAWFORD, M.D., Secretary.

DAVISS COUNTY MEDICAL SOCIETY

The Daviess County Medical Society held its regular meeting at Pattonsburg, at the home of Dr. J. D. Dunham, the evening of July 9. An elegant 6 o'clock dinner prepared by Mrs. Dunham was enjoyed very much by the doctors who will never forget the cordial hospitality of Dr. and Mrs. Dunham. The meeting proved to be one of the best in the late history of the Society.

The members present were Drs. W. L. Brosius, A. G. Minnick, S. H. Hardinger, R. V. Thompson, N. M. Wetzel, Frank Hedges, Annie McClung and O. F. Clagett. The visiting physicians were Drs. Flaval B. Tiffany, of Kansas City, G. D. Harris, of Jamesport, and Dr. Wagoner of Civil Bend.

The meeting was called to order by the president, Dr. N. M. Wetzel. Dr. M. A. Smith being absent Dr. O. F. Clagett was appointed secretary.

Drs. A. G. Minnick and R. V. Thompson furnished three very interesting clinics for the meeting which proved a stimulant to a most profitable discussion.

Dr. Frank Hedges read a very able paper on typhoid fever which was discussed by different members present.

Dr. Tiffany presented the subject of cataract in a very instructive and interesting manner, from the standpoint of a specialist and teacher. Dr. Tiffany's training and extensive work in his special field have given him a wide knowledge and large experience, the results of which he imparts to his colleagues in an entertaining and instructive manner. Every absent member missed a treat by not hearing his address.

Dr. G. D. Harris was unanimously elected to membership and Dr. Wagoner made application for membership.

The past history of medicine reveals the fact that all progressive physicians are members of the county societies.

The next regular meeting will be held with Dr. Wetzel, at Jameson, Oct. 8, 1912.

O. F. CLAGETT, M.D., Secretary pro tem.

GENTRY COUNTY MEDICAL SOCIETY

MEETING OF JUNE 25, 1912

Pursuant to a call by the president, Dr. A. W. Paulett, Gentry County Medical Society met at the Young Men's Club, King City, June 25, 1912.

The following members were present: Dr. A. W. Paulett, Dr. McAllister and Dr. Blacklock, of King City; Drs. Brooks, Wells, Crockett and Hinkley, Stanberry; Dr. Whiteley, Albany.

A discussion of the defense fund was brought up by Dr. Wells, of Stanberry, and it was the unanimous opinion that each member should pay \$5 a year instead of \$2 as dues to the State Medical Association and \$3 should be transferred to the defense fund.

As the call was made to discuss ways and means to equalize the medical fees over the county, on motion by Dr. Wells, a committee of three was appointed to confer with adjoining counties and procure fee bills to

serve as a basis upon which to act. Also, after due deliberation, it was agreed by all that, owing to the increased cost of living the fees were inadequate for a livelihood for the practitioners of the county.

President Paulett appointed Drs. J. H. Wells, Dr. W. T. Martin and Dr. D. E. Blacklock on a committee to report at our next meeting to be held at Stanberry, July 9.

After a discussion on fractures and other subjects pertaining to the general practitioner, the meeting adjourned until Tuesday, July 9, 1912.

G. W. WHITELEY, M.D., Secretary.

MEETING OF JULY 9, 1912

The regular meeting of Gentry County Medical Society was called to order at the Wabsh Hotel parlors, Stanberry, July 9, 1912.

Members present: Drs. Barge, Whiteley, McAllister, Blacklock, Williamson, Wells, Brooks and Caffin. Also, our genial and efficient State Secretary, Dr. E. J. Goodwin, of St. Louis.

After reading of the minutes of the previous meeting, the report of the committee on fees was called for. Dr. Wells reported the following minimum fee bill:

In order to establish as far as possible uniform charges for professional services, to prevent dissatisfaction and litigation, the members of Gentry County Medical Society pledge themselves as far as consistent with the circumstances of the patient, to be governed by the following minimum fee bill:

- Ordinary office consultation or prescribing, 50 cents.
- Office examination, \$1 to \$5.
- Visit in town (day), \$1.50.
- Visit in town (night), \$2 after 8 o'clock p. m.
- Visit in country (day), \$1 per mile for first 5 miles.
- 75 cents per mile or part of a mile above 5 miles.
- Way calls under 5 miles, \$2; over, \$3.
- Night calls in country after 8 p. m., 50 cents additional to day calls.
- Consultation (town) \$10; county, \$16, mileage extra.
- Obstetrics (town), \$10; county, \$19, mileage extra.
- Obstetrics, instrumental or complications, \$20 and up.
- Miscarriage same as obstetrics.
- Additional visit regular charge.
- Anesthesia, \$5 to \$10, plus mileage.
- Fractures, \$15 and up.
- Dislocations, \$10 and up.
- Major operations, \$100 and up.
- Minor surgery, \$1 and up, plus mileage.
- All necessary visits at regular charge after first dressing.
- Professional telephone advice, 50 cents to \$1.
- Ministers charged regular fees.
- Physicians carrying own drugs will charge regular drug store prices, plus prescription fees.

After the bill was made it was taken up by sections, discussed and adopted.

Following a luncheon given by the Stanberry physicians, Dr. Goodwin gave a short talk as well as a great many points as to our fees and meetings to be held in future.

The society adjourned to meet at Darlington, July 23, 1912.

G. W. WHITELEY, M.D., Secretary.

GREENE COUNTY MEDICAL SOCIETY

MEETING OF MAY 24

The meeting of the Greene County Medical Society was held in regular session, May 24, with a good attendance and much interest.

The chairman of the Committee on Public Health and Legislation made the following report:

"On May 10, your committee presented evidence to the Hon. J. H. Mason, prosecuting attorney of Greene

County, of certain persons advertising themselves as chiropractors and claiming wonderful results from their method of treatment. We asked Mr. Mason to prosecute these men. So far he has ignored our request. Owing to the fact that Mr. Mason seems so unconcerned in what we consider an important question, we offer the following resolutions:

WHEREAS, One L. S. Hunter and one Fenter & Otto are advertising to practice medicine and are so practicing, and

WHEREAS, Said persons are not registered as licensed physicians, as required by law, and have no authority whatever to practice, and

WHEREAS, We have respectfully called the attention of the Hon. James H. Mason, the prosecuting attorney of Greene County, Missouri, to these matters and have asked that a prosecution be instituted, and

WHEREAS, Our request respectfully and deferentially presented has been absolutely ignored and no reasonable excuse offered for such inaction; therefore, be it

Resolved, That this body lodge this complaint before and with the Hon. Herbert S. Hadley, governor of the State of Missouri, and Hon. Elliot W. Major, attorney general of the State of Missouri, with a request that they take such action as may be necessary to prevent such continued violation of the law.

Resolved, That such information be given by having a copy hereof mailed to the said governor and attorney general with such letter of explanation as the secretary of the Association sees fit to send.

In accordance with the resolution, the secretary wrote the governor and attorney general enclosing a copy of these resolutions, and asking them to compel the prosecuting attorney to take action. The papers have been placed in the hands of the sheriff but, so far, no arrests have been made. If no arrests are made in the next few days, the society expects to employ counsel and impeach the prosecuting attorney for failure to perform his duty. We are determined to rid the city of this class of imposters and charlatans.

Dr. F. B. Fuson read a paper on "Public Health and State Hospitals," which was well received and freely discussed by most all present.

MEETING OF JUNE 21

The meeting was called to order by the president, Dr. D. U. Sherman. Owing to the inclement weather the attendance was not large.

Dr. Fulton read a paper on "Mammary Tumors." He spoke of the classification into benign and malignant tumors. The two important points in the paper were the necessity of an early diagnosis and a thorough removal of all tumors of a malignant nature. The author confesses difficulty in differentiating between simple acute mastitis and beginning mammary tumors. He has found palpation a valuable aid in making the diagnosis as a tumor has a tendency to roll from under the hand. The technic of operation for the removal of these tumors was given in detail.

Dr. Lowe, in discussing the paper, gave a detailed description of the anatomy of the parts and pointed out the very intimate relation of the lymphatics to these tumors. Dr. Buchanan stated the principal points in making a differential diagnosis between mastitis and morbid growths of the breast, and between benign and malignant tumors. Dr. Fortner also spoke on the necessity of early diagnosis and complete removal of all diseased tissues. Dr. Dewey spoke of the pathological conditions and of the necessity of the hospitals being equipped with proper facilities to make pathological examinations of all tumors. Drs. Boyd and Williams discussed the paper from the general practitioner's standpoint.

The society will meet again Friday, June 28, after which there will be no meetings until September.

THOMAS O. KLINGNER, M.D., Secretary.

HOWELL COUNTY MEDICAL SOCIETY

The Howell County Medical Society met in Drs. Nichols and Elliott's office and transacted the following:

Officers present, Dr. Thornburgh, president, presiding; Dr. Cunningham, vice-president; Dr. Elliott, secretary-treasurer.

Members present, Drs. Shuttee, Speers, Evans, Wells, Johnson, Thornburgh, Cunningham, Thompson and Elliott.

Dr. Robert S. Spears read a paper on "Effects of Climate of Southwest on Tuberculosis."

Discussion opened by Dr. A. H. Thornburgh followed by H. C. Shuttee; Dr. Spears closing.

Dr. J. H. Elliott read a paper on "Diagnosis of Disease of the Stomach."

Discussion opened by Dr. Shuttee, followed by Drs. Johnson and Spears; Dr. Elliott closing.

Dr. A. H. Thornburgh read a paper on "Anti-Typhoid Bacterin."

Discussion opened by Dr. Shuttee followed by Drs. Evans, Wells, Spears, Cunningham and Elliott; Dr. Thornburgh closing.

The following essayists were chosen to present papers at the meeting in August, each one being allowed to choose his own subject; Drs. George Wells, Thayer; H. C. Shuttee, West Plains; Dr. J. C. B. Davis, Willow Springs.

There was much interest and enthusiasm manifested over the subjects given at this meeting and all are in great expectation for the August meeting.

JAMES H. ELLIOTT, M.D., Secretary.

LAFAYETTE COUNTY SOCIETY

The Lafayette County Medical Society met at Higginsville, June 11, 1912. Dr. J. A. Schneider, vice-president, in the chair, Dr. W. C. Webb, secretary pro tem.

Those present were Drs. Braecklein, Carthrae, Jr., Oetting, Ott, Moore, Schneider, Schreiman and Webb.

The constitution was amended by two amendments, one making Higginsville the permanent meeting place, in the months of February, April, June, August, October and December. The other, creating the office of second vice-president.

Dr. Ott presented a specimen of interest, a tonsil stone the size of a marble, which was removed from a girl 7 years old.

Dr. Braecklein gave an informal talk on "Experience with Serum and Vaccine Therapy." The doctor's standard of measurement as regards dosage is, a sufficient quantity to bring about results.

Dr. Braecklein's talk brought about a spirited and very instructive discussion.

FERDINAND SCHREIMAN, M.D., Reporter pro tem.

LAWRENCE-STONE COUNTY MEDICAL SOCIETY

The Lawrence-Stone County Medical Society met in the Masonic Hall at Galena, Tuesday, June 4, 1912.

The following program was presented:

"Pleurisy," by Dr. W. S. Loveland, Verona.

Discussion by Drs. F. S. Stevenson and J. H. Wade.

"Spinal Meningitis," by Dr. R. W. Smart, Crane.

Discussion by Dr. H. L. Kerr and J. P. Andrews.

"Intestinal Obstruction," by Dr. C. E. Fulton, Springfield.

Discussion by Drs. Rosebury and Miller.

"Trachoma," by Dr. W. M. Holmes, Marionville.

Discussion by Drs. Shelton and Smith.

The following members were present: Drs. F. S. Stevenson, L. Henson, T. D. Miller, J. P. Andrews, W. F. Ament, C. E. Fulton, H. Lowe, D. M. Huffman, S. A. Johnson, C. McCord, E. C. Rosebury, J. H. Wade,

W. S. Loveland, J. W. Smith, J. P. Baird, R. W. Smart, H. L. Kerr and W. W. Rodman.

Our councilor, Dr. A. H. Madry, was absent on account of the sickness of his wife.

Resolutions on the death of Dr. N. F. Terry and the resignation of Dr. Harvey Wiley, prepared by a committee of which Dr. A. H. Madry was chairman, were presented and read by the secretary. The resolutions were adopted and ordered to become a part of the minutes of the meeting. Copies of the resolutions were ordered to be sent to the STATE MEDICAL JOURNAL. A copy of the resolution on the death of Dr. Terry was ordered to be sent to his widow.

There was a lively discussion on all papers presented; every member present taking part.

RESOLUTIONS ON THE DEATH OF N. F. TERRY, M.D.

We had expected when last our Society met that one whose name was on our roll as an honorary member would be with us here and take part in the exercises of to-day. His place is vacant, Greene County Medical Society mourns his loss and a fond wife no longer awaits his coming. Dr. N. F. Terry rests from his labors. It seems such a pity to lose from our fellowship one, any one. Instead of less, we need more members both active and honorary such as we have, that we may continue the cordial relation that has always existed in this Society and that we may continue to broaden the scope of our usefulness to each other and to mankind. To lose one, who was more of an active than an honorary member and one whose counsel was so valuable to us and was so freely given, makes a loss to this society we sorely feel. But to have taken from us one whose worth we are just beginning to rightly value is a sad but common heritage shared alike by all mankind. Dr. Terry's connection with our society dates back to almost the beginning days. His interest in the welfare of our organization seemed to increase rather than diminish, as the years went by and we had come to feel that something had gone wrong when he failed to meet with us and read a paper or enter into a discussion on the papers others presented. He was born in Kossuth, Iowa, in 1852, later removing with his parents to Mt. Pleasant, Iowa, and graduating from the Iowa Wesleyan University.

His greatest ambition from early boyhood was to become a physician, and later, in a measure, made for himself the opportunity a financial condition had denied him by teaching school. He graduated from Miami Medical College in 1876 and began the practice of medicine in northwestern Iowa, but soon removed to central Kansas where he built up another practice. While living there, he married Leora Hibler of St. Louis who still survives him. In 1894 he went to Springfield where he lived and practiced until April 17, 1912, the date of his death. He was stricken suddenly and died very soon afterward while reposing in the arms of his friend and our friend the president of our Medical Society, Dr. W. W. Rodman. We feel that it is due ourselves, due the sorrowing widow, and due the memory of the man and his many virtues that we here write as a modest index of what we feel the following resolutions:

Resolved, That in the death of Dr. N. F. Terry, though an honorary member of the Lawrence-Stone County Medical Society, we realize the loss of a valued member, an able counsellor, and a true friend.

Resolved, That the loss we are in humble submission bearing is not ours alone but one in which the medical profession at large is sharing.

Resolved, That though cut down at what appeared to be the acme of his labors, his life was nevertheless a grand success and the good deeds done and the purposes actuating them, remain to inspire his lamenting co-laborers with burning desires for and ennobling thoughts of higher and broader planes of professional usefulness.

Resolved, That no more suitable place from which to give back his spirit to the Maker could have been found than in the arms of the president of this society and that had we been called on to protect that loving wife from the awful shock of so sudden a demise, we could not have done more than offer him the arms of our president in which to die.

Resolved, That we hold his good deeds in perpetual remembrance while we emulate his many virtues, that a copy of these resolutions be furnished his sorrowing wife, that these proceedings be made a part of the minutes of this meeting and a copy be furnished the STATE MEDICAL ASSOCIATION JOURNAL for publication.

A. H. MADRY, M.D.,

Chairman of Committee on Resolutions.

RESOLUTIONS ON THE RESIGNATION OF DR. WILEY

We always respect one who remains faithful to his trust, honestly laboring to perform the duties assigned him. We cannot prevent the rising of righteous indignation within us, when we see this kind of a public servant forced to retire from his position through failure of support that he had every right to expect from his superiors.

It is with regret we acknowledge the circumscribed limits marked out for our profession by the predatory interests of our country and the readiness with which these are served by the legal profession in laying out those limits and otherwise discounting our usefulness to the people at large. It matters not whether so important a trust as the execution of the pure food laws, or the appointment of a physician on a one-horse railroad for local duty at one-horse stations, is up for consideration; the dominating influence of the legal profession is ever present. To appoint a Remsen Board with the nullifying powers it received would have been enough to destroy the benefits to the people of a most perfect law under a less energetic and resourceful officer than Dr. Harvey W. Wiley, but when to this is added the opposition of a solicitor of McCabe's ability we are left to wonder how Dr. Wiley fought the fight of the people so successfully and so long.

We regret that the Secretary of Agriculture failed to recognize the purposes to which the predatory interests were using him until too late to prevent the blotting of a long and useful public service.

We regret that when President Taft refused to follow the recommendations of the Secretary of Agriculture to dismiss Dr. Wiley from the service that he did not dismiss from the service all those employed by the government, who, while pretending to enforce the pure food laws were in reality unfriendly to Dr. Wiley and the enforcement of these laws. The Hamans should be hung on the gallows they themselves have erected.

Be it therefore,

Resolved, By the Lawrence-Stone County Medical Society, that we recognize and resent the pernicious activity of the legal profession in dictating appointments of members of our profession to medical positions whether corporate or political, and that we further resent as grossly impertinent their editing of reports and modification of findings and recommendations made by medical officers of every rank and station. Be it further

Resolved, That we consider it the duty of every officer from president of this great Republic to the lowest officer in it to give his moral as well as official support to the honest enforcement of all laws and particularly those enacted in the interest of health and as a protection against the mercenary interests of soulless corporations who are honest only when made to be. Be it further

Resolved, That in the loss of Dr. Harvey W. Wiley from the Service, the people have lost an able advocate and the Government an energetic and conscientious officer whose place will be hard to fill. Be it further

Resolved, That we consider it of prime importance that all health agencies of our government be placed as much as practicable under one head, and that these agencies when so assembled be removed as far as possible from partisan political influence, commercial aggression and the meddlesome interference of the legal fraternity. Be it further

Resolved, That a copy of these resolutions be sent to Dr. Wiley and a copy to the STATE MEDICAL JOURNAL for publication and that they be included in the minutes of this meeting.

A. H. MADRY, M.D.,

Chairman of Committee on Resolutions.

Dr. W. S. Loveland presented an excellent paper on "Pleurisy," and dealt with his subject largely from a clinical standpoint. The paper was discussed on such points as etiology, pathology, symptoms and treatment.

Dr. Fulton's paper on "Intestinal Obstruction" was highly instructive. He presented three forms; intussusception, volvulus and mechanical. These forms were reviewed from a clinical standpoint and brought out a most excellent discussion. Dr. Fulton was called upon to answer several questions relative to his paper which he did in closing the discussion.

Dr. Smart did not present a paper on meningitis but talked on the subject from a scholastic point of view. There was not sufficient time left for discussion.

The meeting adjourned to meet in Aurora, Sept. 3, 1912.

The Lawrence-Stone County Medical Society is one of the best organizations in the state from the fact that nearly every physician in Lawrence and Stone counties is a member and takes part in the meetings. This excellent condition of affairs is largely due to our Councilor, Dr. A. H. Madry.

W. F. AMENT, M.D., Secretary.

MACON COUNTY MEDICAL SOCIETY

An interesting meeting of the Macon County Medical Society was held in Macon, Tuesday, in the office of the president, Dr. A. B. Miller. A special feature was a clinic in heart diseases.

Dr. C. C. Conover, of Kansas City, was present and conducted the heart clinic. From 10 o'clock in the morning until 5 in the afternoon case after case of heart disease was presented. These were examined and explained by means of charts and preserved specimens of human hearts. The members present expressed themselves as having witnessed a clinic equal to any they had ever seen in any city hospital. Having a trained clinic teacher from the city is a new and interesting feature, which is to be introduced in the monthly meetings of the society.

After the adjournment of the session a splendid banquet was served on the beautiful lawn surrounding the home of Dr. and Mrs. A. B. Miller. The Ladies Auxiliary of the county society served.

The out-of-town members present were Dr. W. P. Hall, Nickellton; Dr. John Hyatt, Excello; Dr. S. T. Reagan, Ardmore; Dr. L. O. Mason and Dr. T. P. Gronoway, Bevier; Dr. and Mrs. W. D. Pipkin, Excello and Dr. and Mrs. J. H. Belyea, of Keota.

The physicians present outside of Macon county were Dr. G. B. Rush, Lathrop; Dr. J. W. Martin, Dr. E. C. Callison and Dr. C. S. Wilson, Kirksville; Dr. A. M. Wood, Lentner; Dr. F. L. McCormick, Huntsville; Dr. R. S. Battersby, Shelbina; Dr. Wm. Bayliss, Clarence; Dr. G. A. Miller, Jacksonville and Dr. C. C. Conover, Kansas City.

RANDOLPH COUNTY MEDICAL SOCIETY

The Randolph County Medical Society met in Moberly, June 6, 1912. The Society was called to order

by the president and the minutes of the previous meeting were read and approved.

Dr. Hickerson read a paper on "Typhoid Fever," which was discussed by all present. Dr. Barnhart presented a patient with locomotor ataxia, which was examined and discussed. The drainage into the city reservoir was discussed and a committee of five men were appointed by Dr. Barnhart, consisting of Drs. Clapp, Cuppaidge, Hickerson, Dutton and Lyter, to confer with the Fair Association and City Council.

The president appointed Dr. Cuppaidge to have a paper on the "Feeding and Treatment of Children with Cholera Infantum," and Dr. Lyter, "The Pathology and Etiology."

The Society adjourned to meet July 11, 1912.

S. P. TOWLES, M.D., Secretary.

WEBSTER COUNTY MEDICAL SOCIETY

The Webster County Medical Society held its quarterly meeting in Carnegie Library, Marshfield, June 19, 1912.

The meeting was called to order at 2:30 p. m. by Dr. C. H. McHaffie, president.

Drs. Highfill, Beatie, McHaffie, Rabenau, Good, Bailey, Schlicht and Bruce answered to the roll call.

Clinical cases were then taken up and discussed, each member presenting a case for discussion.

Dr. M. Highfill, delegate to the state meeting, made a report of the meeting at Sedalia and described several cases which were very interesting.

The meeting adjourned at 5:30 and proceeded to the Webster Hotel where a banquet was served to the doctors and wives, and invited guests.

A public meeting was held in the Carnegie Library at 8:30. A large audience listened to a few opening remarks from Dr. Highfill after which papers on "Adulteration of Foods and Drugs," by Dr. Schlicht, of Nianqua; "Home Hygiene and Sanitation," by Dr. C. H. McHaffie, of Rogersville, were read and were well received. These papers were then discussed by members in attendance. The common house fly was also made the subject of a free and profitable discussion.

The next meeting will be held at Rogersville, Sept. 18, 1912.

JOHN R. BRUCE, M.D., Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 335 Dearborn Avenue, Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

PURIFIED EXTRACT OF ADRENAL GLAND, MULFORD, is an extract of the suprarenal gland, standardized physiologically by measuring its effect on blood-pressure

and so adjusted as to correspond to the effect of 4 per cent. of purified epinephrine. It has therefore approximately four times the strength of desiccated suprarenal gland U. S. P. It is marketed as follows: Adrenal Ointment, Mulford containing purified extract of adrenal gland, Mulford, 25 parts, boric acid 1 part in 1,000 parts. Urethral Suppositories Adrenal Comp., Mulford, each containing purified extract of adrenal gland 0.06 gm. (1 grain), eargentos 0.13 gm. (2 grains). Vaginal Suppositories Adrenal Comp., Mulford, each containing purified extract of adrenal gland 0.06 gm. (1 grain), eargentos 0.13 gm. (2 grains), ichthyol 0.13 gm. (2 grains). H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, July 13, 1912, p. 121).

ARTICLES ACCEPTED FOR N. N. R. APPENDIX:—

Lozenges Adrenal Comp., each containing dried suprarenal gland 0.01 gm. (1/6 grain), menthol 0.0013 gm. (1/50 grain), benzoic acid 0.0026 gm. (1/24 grain), eucalyptol 0.0013 gm. (1/50 grain).

Rectal Suppositories Adrenal, each containing dried suprarenal gland 0.3 gm. (5 grains) (*Jour. A. M. A.*, July 13, 1912, p. 121).

REFORM IN MEDICINES

TAKA-DIASTASE AND LIQUID TAKA-DIASTASE.—About three years ago the Council on Pharmacy and Chemistry rejected Taka-Diastase and Liquid Taka-Diastase because examination showed that the products on the market did not comply with the claims made for them. Recently it was decided that a reexamination should be made to ascertain whether the preparations were now in accord with the claims made for them by the manufacturer. The examination having shown that unwarranted claims are still made, the committee which made the examination recommended that the rejection of Taka-Diastase and Liquid Taka-Diastase be allowed to stand. The report having been submitted to Parke, Davis & Co., this firm reiterates its claims for the digestive power of Taka-Diastase, but admits that it will not reduce the stated amount of starch to the colorless end-point in ten minutes (the standard method for the valuation of diastase). It further states that it would change the word "digest" on the label to "liquefy." In view of the contention of Parke, Davis & Co. the Council referred the entire matter to a member of the Council's staff of clinical consultants for final recommendation. This referee concludes that the claims of the manufacturers regarding the strength and properties of the material are erroneous and exaggerated; that the literature still sent out by Parke, Davis & Co. is misleading, and that if substitution of the word "liquefy" for "digest" were endorsed by the Council confusion would result which would give an exaggerated and false value to Taka-Diastase. The Council accepted the recommendation of the referee and voted that the rejection of Taka-Diastase and Liquid Taka-Diastase be allowed to stand (*Jour. A. M. A.*, July 6, 1912, p. 50).

CALCIUM GLYCEROPHOSPHATE.—Believing that the glycerophosphates were of some probable value, the Council decided to describe calcium glycerophosphate in New and Nonofficial Remedies, so that definite standards of quality might be prescribed. The Association's Chemical Laboratory having, at the request of the Council, taken up the examination of the supply of calcium glycerophosphate on the American market and entered into correspondence with the manufacturing houses, now reports that no product of even fair quality is to be had, and that those who make it appear not inclined to make improvements. Investigation having shown that the glycerophosphates are probably not superior to ordinary inorganic phosphates, there is little likelihood that a consequent decreasing demand will be any inducement to provide a good

quality of drug in the future. In view of these conditions, the Council decided not to describe the drug in New and Nonofficial Remedies (*Jour. A. M. A.*, July 13, 1912, p. 134).

A GERMAN COUNCIL ON PHARMACY AND CHEMISTRY.—An appreciation by German physicians of the need for reform in proprietary medicines has finally culminated in the establishment of a German Council on Pharmacy and Chemistry to be known as "Die Arzneimittellkommission des Kongresses für innere Medizin." In a preliminary report this commission has classified the advertisements for proprietary medicines, which appeared in German medical journals during 1911, into three classes according to certain rules which correspond essentially to those of the A. M. A. Council. The first list includes remedies the method of advertisement of which complies with these rules (positive list). The second list includes remedies the advertisements of which do not comply with the established rules (negative list). In the third list are placed those articles regarding which the commission was unable to form an opinion (doubtful list) (*Jour. A. M. A.*, July 27, 1912, p. 291).

THE PHYSICIAN AND DRUG STANDARDS.—In view of the decision of those who are in control of the revision of the U. S. Pharmacopeia and of the National Formulary to make the first a book of standards for drugs, regardless of their therapeutic value, and the latter a book of formulas, good, bad and indifferent, Henry P. Hynson, a pharmacist, proposes that two other books should be published. The first book is to contain those drugs which the medical profession deems valuable and its scope is to be determined by the American Medical Association. The second book is to contain the pharmaceutical preparations made from the drugs contained in the first book and is to be prepared by the American Pharmaceutical Association. There has long been a demand for a book restricted to the really useful remedies particularly by medical teachers and state board examiners and it is quite probable that one will soon be announced by a committee created for the purpose by the Council. The proposition of Hynson is a recognition of the fact that the two present standards, the Pharmacopeia and the National Formulary, do not fulfil the practical requirements of practicing physicians, teachers and examining boards (*Jour. A. M. A.*, July 27, 1912, p. 291).

VACCINES AND SERUMS, CONTROL OF.—The many serums, vaccines and antitoxins which are sold in this country bear the statement "Licensed by the Treasury Department" or "U. S. Government License No. —" and "Guaranteed under the Food and Drugs Act." The latter statement means only that in case of legal difficulty the retail dealer may shift the responsibility to the manufacturer. The first two statements mean that the products are manufactured under a license issued by the United States Treasury Department after an inspection of the establishment and examination of the products themselves. The products are examined in the Hygienic Laboratory of the United States Public Health and Marine-Hospital Service, for the presence of living organisms, especially of pathogenic organisms, the presence of tetanus toxin, the control of the strength of the preparation, so far as this is possible, the absence of adulterations, etc. Unfortunately, however, there are many products whose value has not been established and others, though of value, which can not be standardized and hence certain products are advertised and sold which have little or no therapeutic value and yet bear a government license. In view of the increasing extravagance of claims made for this class of products it is important that the Council on Pharmacy and Chemistry exercise the same watchfulness over serums and vaccines that it has exercised over other products (*Jour. A. M. A.*, June 1, 1912, p. 1687).

TUBERCLECID AND ITS PROMOTER.—According to an analysis made in the A. M. A. Chemical Laboratory Tuberclecid is "essentially a solution of creosote or guaiacol in some bland oil, probably olive oil." The leading spirit of the concern and the reputed "discoverer" is one Charles F. Aycock. Aycock at one time exploited a catarrh cure, embezzled money from the county which elected him as its treasurer, forfeited the bail given by a friend, and finally was sentenced to five years in the penitentiary. Later he was released from the penitentiary through the efforts of his wife whom he then deserted (*Jour. A. M. A.*, June 1, 1912, p. 1702).

RESOR-BISNOL.—The following indefinite, vague and misleading formula was at one time given in advertisements in a number of medical journals: "A scientific combination, in nicely balanced proportions of Bismuth Salts of antiseptic acids of the aromatic series, and Resorcin. Each 100 parts contains 20 parts Resorcin, and 52 parts Bismuth Oxid, combined with antiseptic acids." From an analysis made in the Association's Chemical Laboratory Resor-Bisnol appears to be a mixture of bismuth subsalicylate, bismuth subgallate, bismuth betanaphtholate and resorcinol (resorcin) (*Jour. A. M. A.*, June 1, 1912, p. 1706).

THE VALUE OF GERMICIDES AND DISINFECTANTS.—J. F. Anderson and T. B. McClintic have worked out a method for the standardization of germicides and disinfectants. They determined the effect of disinfectants on the typhoid bacillus as compared with the effect of phenol. The coefficient of a disinfectant may, for practical purposes, be defined as the figure that represents the ratio of the germicidal power of the disinfectant to the germicidal power of carbolic acid (phenol) the latter being taken as unity, both having been tested under the same conditions. The efficiency of disinfectants being variously affected by organic matter, the phenol coefficient is determined both in the presence and in the absence of organic matter. As illustrations of their findings the following results are given, the coefficient found when organic matter was absent being given first and that found in the presence of organic matter being given second and in parentheses: Benetol, 1.23 (.92); Cabot's sulpho-naphthol, 3.87 (2.33); Creolin-Pearson, 3.25 (2.52); Kresol, 3.92 (2.32); Liquor cresolis compositus, U. S. P., 3.00 (1.87); Lysol, 2.12 (1.57) and Trikresol, 2.62 (2.50). Dioxigen, Listerine, Phenol sodique and Platt's chlorides had no determinable coefficient. (*U. S. Public Health and Marine-Hospital Service, Hygienic Laboratory Bulletin No. 82*).

HYOMEI.—Hyomei is "guaranteed to cure catarrh, coughs, asthma, colds, croup and sore throat." It is also said to cure "all breathing troubles including early consumption." Hyomei is an oily liquid, a few drops of which are applied to a piece of gauze and the gauze placed in a hard rubber "inhaler" which is sold with the nostrum. The chemists of the British Medical Association analyzed this humbug and reported that it had essentially the following composition: Oil of eucalyptus, 80 per cent.; alcohol, 10 per cent.; liquid paraffin, 10 per cent.; and creosote apparently a trace (*Jour. A. M. A.*, June 8, 1912, p. 1769).

ADLERIKA.—Adlerika is an "appendicitis cure" sold by the Adlerika Company of St. Paul, Minn. It is sold through druggists, i. e. through such as are not above entering into this sort of scheme to defraud their customers. In a leaflet that it sends around to druggists the company frankly admits that it is not the people who have appendicitis that may be expected to buy this worthless and potentially dangerous fraud, but

those who *think* they have it. Analyzed by the state chemists of North Dakota, Adlerika was reported to contain large quantities of epsom salts and aloes, considerable salicylic acid and a trace of alcohol. Of course, a purging preparation, such as this, not only will not cure appendicitis, but may in some cases kill the patient suffering from that disease (*Jour. A. M. A.*, June 8, 1912, p. 1770).

SARGOL.—Next to the widely-advertised nostrums on the market for the cure of obesity, there are probably no bigger humbugs extant than the preparations sold as "flesh builders." Some of the latter class of fakes are alleged to be local in their action—to build up the bust but to have no effect on the rest of the body. Still others, of which Sargol is one, are sold as general "flesh builders." Sargol, which if we believe the advertisements, "makes puny, peevish people plump and popular," is sold by the Sargol Co., of Binghamton, N. Y. The stuff is advertised on both sides of the Atlantic. It was recently analyzed by the chemists of the British Medical Association who reported: Sugar, 18.0 per cent.; insoluble protein (coagulated albumin?), 10.8 per cent.; sodium and potassium hypophosphites, 7.7 per cent.; albumin (soluble), 4.2 per cent.; lecithin, 1.9 per cent.; zinc phosphid, 0.7 per cent., talc, kaolin, moisture, etc. The British chemists estimated that the cost of the materials for thirty of these worthless tablets was about 2½ cents; they are sold for \$1.00 (*Jour. A. M. A.*, June 8, 1912, p. 1770).

TURNER OBESITY CURE.—Dr. Turner's Obesity Cure belongs in the same category as the Marjorie Hamilton "cure." Money is obtained from victims under the pretense that dieting, exercise and purging are not a part of the treatment. After obtaining the money the victim finds that he must follow a strict diet, that he must exercise and that he must take medicines, sold by the concern, particularly "Dr. Turner's Concentrated Food Tablets" and "Dr. Turner's Special Food Tablets" which, when examined in the Association's Chemical Laboratory, corresponded in composition to evaporated whey. Attempts are also made to wheedle the victims into purchasing a "To-Kalon Keapshape Corset" or a "Neal Reducing Belt." Dr. Turner whose name is used in connection with this obesity cure is also the manager of the Vanadium Chemical Company, which exploits various vanadium preparations to the medical profession (*Jour. A. M. A.*, June 22, 1912, p. 1961).

THE RADIUM CONTENT OF DIORADIN.—An examination of a specimen of Dioradin made in Holland indicated that but 1-1000 of the claimed amount of radium was present. While examination of one specimen is no proof that all specimens of Dioradin contain but a small fraction of the radium which they are said to contain, it proves at least that the manufacturer's claim should be viewed with suspicion. Physicians who are asked to use this preparation should refuse to do so until it has been approved by the Council on Pharmacy and Chemistry (*Jour. Mich. State Med. Soc.*, June, 1912, p. 358).

TAKING THE MEASURE.—At one time the Tilden Company, New Lebanon, N. Y., stood rather well with the profession and hence it has been a surprise to some that none of its preparations are found in New and Non-official Remedies. The reason is given in a report of the A. M. A. Chemical Laboratory on Hydrocyanate of Iron—Tilden. The report showed that the firm held the composition of the remedy a "trade-secret"—analysis showed it to be a mixture of Prussian blue and talc—and that the statements made regarding it, if not absolutely false, were at least distinctly misleading. A recent prosecution of the Tilden Company for misbranding its acetanilid-phenacetin mixture, Febrisol, shows that the firm's policies have included deception (*Jour. A. M. A.*, June 29, 1912, p. 2043).

BOOK REVIEWS

RETINOSCOPY OR SHADOW TEST IN THE DETERMINATION OF REFRACTION AT ONE METER DISTANCE, WITH THE PLANE MIRROR. By James Thornington, A.M., M.D. Author of *Refraction and How to Refract*, etc., etc. Sixth edition, revised and enlarged. Illust. Cloth pp. 71. Philadelphia, P. Blakiston's Son & Co. \$1 net.

The fact that this little book has already reached its sixth edition speaks louder than words of its merits.

Retinoscopy is growing in favor and popularity, and the subject is amply and ably covered in Dr. Thornington's book. The sixth edition has received careful revision and enlargement.

PRACTICAL MEDICINE SERIES. Comprising ten volumes on the year's progress in medicine and surgery. Under the general editorial charge of Gustavus P. Head, M.D., and Charles L. Mix, A.M., M.D. Vol. I. General Medicine. Edited by Frank Billings, M.S., M.D., and J. H. Salisbury, A.M., M.D. Series 1912. pp. 404. Chicago, Ill. The Year Book Publishers. This volume \$2.00. The series of ten books \$10.00.

The main chapters of this volume include Infectious Diseases; Diseases of the Lungs and Pleuræ; Circulatory Organs; Arteries; Blood; Ductless Glands; Metabolic Diseases, and Diseases of the Kidney.

PRACTICAL MEDICINE SERIES. Comprising ten volumes on the year's progress in medicine and surgery. Under the general editorial charge of Gustavus P. Head, M.D., and Charles L. Mix, A.M., M.D. Vol. II. General Surgery. Edited by John B. Murphy, A.M., M.D., LL.D. Series 1912. pp. 616. Chicago, Ill. The Year Book Publishers. This volume \$2.00. The series of ten books \$10.00.

This volume on general surgery is one of the most serviceable that has appeared in the series.

PRACTICAL MEDICINE SERIES. Comprising ten volumes on the year's progress in medicine and surgery. Under the general editorial charge of Gustavus P. Head, M.D., and Charles L. Mix, A.M., M.D. Vol. III. The Eye, Ear, Nose and Throat. Edited by Casey A. Wood, C.M., M.D., D.C.L., Albert H. Andrews, M.D., and Gustavus P. Head, M.D. Series 1912. pp. 358. Chicago, Ill. The Year Book Publishers. This volume \$1.25. The series of ten volumes \$10.00.

An excellent volume on diseases of the eye, ear, and nose and throat.

The volumes of the Practical Medicine Series may be counted upon as containing the latest word on a given subject, presented in a concise and graphic manner.

TUBERCULIN TREATMENT. By Clive Riviere, M.D. Lond., F.R.C.P. Physician, East London Hospital for Children, etc., and Egbert Morland, M.B. & B.Sc. Lond., M.D., Berne. Visiting Physician to the English Sanatorium (Villa Gentiana), etc. Cloth. pp. 277. New York City. Oxford University Press, 1912. \$2.00.

It has been singularly true of practically all radical discoveries in therapeutic medicine that the triumph of their initial introduction into practice was of short duration, and their worth came out only in after-years which brought with them a new approximation of the agents and a modification of their original technic. This promises to be the case with tuberculin.

This volume is a brief in defense of tuberculin treatment which has been revived in Europe after its absolute rejection following close upon its first glorified appearance twenty years ago. The object of the volume is "to take tuberculin treatment out of the field of

doubt and controversy, and to place its principles and practice alike upon a firm basis." The writers have endeavored to give an account of the entire field of tuberculin treatment in proper perspective, and show how the two methods of treatment which have recently arisen are both of equal intrinsic value and are based on the same essential principles.

KIDNEY DISEASES. By W. P. Herringham, M.D., F.R.C.P. Physician to St. Bartholomew's Hospital, etc., etc. With chapters on renal diseases in pregnancy by Herbert Williamson, M.D., F.R.C.P. Assistant Physician-Accoucheur to St. Bartholomew's Hospital, etc., etc. Cloth pp. 378, New York City, Oxford University Press, 1912. \$5.50.

The observations and deductions of a man like Dr. Herringham are always welcome. The fact that they often coincide with the conclusions of others does not lessen their value nor detract from their significance.

The volume on kidney diseases is conservative in tone and is the outcome of many years' work in hospital and ward. Associated with Dr. Herringham is Dr. Williamson whose chapters on renal disease in pregnancy are a striking contribution to medicine.

TEXT-BOOK FOR NURSES. Anatomy, Physiology, Surgery, and Medicine. By E. W. Hey Groves, M.S., F.R.C.S., Assistant Surgeon, Bristol General Hospital, etc., and J. M. Fortescue-Brickdale, M.A., M.D. Assistant Physician, Bristol Royal Infirmary, etc. Cloth, pp. 407. Illust. New York City, Oxford University Press, 1912.

Most students' text-books presuppose a practical knowledge of laboratory and post-mortem work, and are therefore unsuitable for nurses. This volume endeavors to fill the want that undoubtedly exists for a book for nurses that shall give explanations of broad principles in non-technical terms. The volume is intended to serve as a supplement to the lectures which are given by the staffs of hospitals, and to present in an intelligible way the principles underlying the treatment which it falls to the nurse to aid in carrying out.

So far as we know there is no other book on the market that approaches this volume in filling this vacancy, and its merits are of the first order.

A TEXT-BOOK OF GYNECOLOGY. By William Sisson Gardner, M. D. Professor of Gynecology, College of Physicians and Surgeons, Baltimore, Md. Cloth 8vo. pp. 286, Illust. New York City, D. Appleton & Co., 1912.

This is a volume which, although prepared primarily for the student, by reason of its lucidity and brevity commends itself to the practitioner as well.

The book is devoted to the common diseases of women, and the subjects belonging to general surgery are omitted. Only brief consideration is given to the rarities in gynecological practice.

The work is of an eminently practical nature and should be a convenient one for the office table.

GNOCOCCAL INFECTIONS. By Major C. E. Pollock, Royal Army Medical Corps, and Major L. W. Harrison, Royal Army Medical Corps. Cloth pp. 222. New York City, Oxford University Press, 1912. \$2.00.

This convenient little volume contains the gist of the recent determinations regarding gonococcal infections. While perhaps the book contains nothing that is startling, its candor and directness will commend it.

With the admission of the limitations that exist in the treatment of the chronic phases of gonorrhea comes the possibility of overcoming these limitations. That the dangers of gonorrhea were for so long a time unsensed by the profession may be attributed to a lack of positive knowledge on the subject. This ignorance has

been done away by the investigations of the past few years, and accordingly the profession has come to give the disease more and more of the regard which it undoubtedly merits.

The fatal fallacy of the attitude of medicine in former years regarding gonorrhea has been effectively exposed. This volume is devoted to a practical delineation of the dangers and possibilities in gonococcal infections. The book is packed full of information on the subject, the therapy and technic of therapeutical application being treated in a lucid fashion.

THE CARE OF THE SKIN AND HAIR. By William Allen Pusey, A.M., M.D. Professor of Dermatology to the University of Illinois. Cloth pp. 182, Illust. New York, D. Appleton & Co., 1912.

An excellent little work in the popular style on the care of the skin and hair. It is a book on skin hygiene and contains information that should be possessed by everyone.

PELLAGRA. History, Distribution, Diagnosis, Prognosis, Treatment, Etiology. By Stewart R. Roberts, S.M., M.D. Assoc. Professor of the Principles and Practice of Medicine, Atlanta College of Physicians and Surgeons, Atlanta, Georgia, etc., etc. Cloth 8vo. pp. 272. Illust. St. Louis, C. V. Mosby Co., 1912. \$2.50.

Pellagra is now recognized as being a disease of more or less international importance. The present work endeavors to treat the subject from a practical standpoint, and is just such a book as will appeal to the student, or the graduate, who, appreciating the importance of the subject, can give to it only a circumscribed consideration. It approaches pellagra from all important angles, and aims to exclude as much of the theoretical as will be consistent with the study of a subject so newly known.

STOMATOLOGY IN GENERAL PRACTICE. A text-book of diseases of the teeth and mouth for students and practitioners. By H. P. Pickerill, M.D., Ch.B., M.D.S. (Birm.), L.D.S. (Eng.). Hon. Stomatologist to the General Hospital, Dunedin, etc., etc. Cloth. 8vo. pp. 268. Illust. Oxford University Press, New York City, 1912.

The appearance of this volume is timely. The territory lying between medicine and dentistry has too long been regarded as a sort of "no man's land". The present author has endeavored to present the pathology and treatment of the commoner diseases that arise in connection with the teeth, jaws and oral mucous membrane, in a way that shall be acceptable to the medical practitioner and likewise appeal to the dentist who certainly should possess a knowledge of the etiology, diagnosis, and prognosis of the oral lesions associated with peri-odontal tissues.

Most of the illustrations are original.

THE PHYSIOLOGY OF FAITH AND FEAR; OR THE MIND IN HEALTH AND DISEASE. By Wm. S. Sadler, M.D., Professor of Physiologic Therapeutics, The Post-Graduate Medical School of Chicago, etc. Cloth, 8vo., pp. 580. Illustrated. A. C. McClurg & Co., Chicago, 1912. \$1.50.

The book is interesting from the standpoint of the quantity of information it contains regarding the customs and superstitions of the ancients and the aborigines.

As to the relationship between body and mind and its bearing on disease, that is still a *veraxa questio* and the solution of the problem is not yet at hand. Dr. Sadler treats the subject in a most interesting way, but we do not think he has reached the conclusion of the whole matter.

PRINCIPLES AND PRACTICE OF DERMATOLOGY. By Wm. Allen Pusey, A.M., M.D. Professor of Dermatology in University of Illinois. Illustrated. Second edition. Svo. Cloth. Pp. 1079. D. Appleton & Co. New York, 1911.

This is an eminently practical and complete book upon diseases of the skin. The first section of the book is taken up with the principles of Dermatology, including the general treatment and classification of diseases of the skin. The remainder of the book is given over to the practice of Dermatology and includes more than a thousand pages, some three hundred and fifty illustrations and a number of excellent plates. The whole book is clearly written and is highly practical. The profuse and well selected illustrations add much to its value. Many new skin diseases have been considered, which have become recognized in recent years. Of interest also are such subjects as the therapeutic uses of radium; the use of liquid air and carbon dioxide in dermatology. The chapters on syphilis include experimental syphilis in monkeys and apes; *Spirochæta pallida* and the Wassermann reaction for the serum diagnosis of syphilis. There is an excellent biography and index. This work is one of the most exhaustive, complete texts on diseases of the skin. It is practical and will hold the interest of student, physician and dermatologist. There is no recent work that rivals it in exactness, in care, and in the number of beautiful, original illustrations.

COMMON DISORDERS AND DISEASES OF CHILDREN. By George Frederick Still, M.A., M.D. (Cantab.), F.R.C.P. (Lond.). Svo. Cloth. pp. 513. Second edition. Oxford University Press, New York, 1912. \$5.50.

The second edition of this work on the diseases of children, which possesses merits which have already commended it to the pediatricist and the general practitioner throughout the English speaking world, contains additional matter on enlarged tonsils and adenoid hypertrophy, epilepsy, asthma, and hydrocephalus.

The changes and modifications necessitated by the scientific investigations made since the book first appeared about two years ago have been recorded in its pages and the work may be safely said to contain the latest word on the subjects which it covers. Its continued usefulness is thus assured and it should be on the table of every physician who is zealous of keeping abreast of the times.

CHARLES AUGUSTUS BERNAYS. A memoir. By Thelka Bernays. Svo. pp. 309. Cloth. St. Louis, C. V. Mosby Co. 1912. \$2.00.

A remarkable biography, possessing a charm of style and intimacy of expression rarely met in biographical literature. It lacks the stilted starchisms of the usual cast of biographies and initiates itself into the interest of the reader with the first chapter.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M.D., AT MERCY HOSPITAL, CHICAGO. Volume I. Number II. Octavo of 291 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Published Bi-Monthly. Price per year: Paper, \$8.00. Cloth, \$12.00.

The second number of the Murphy Clinics covers 285 pages, and its nineteen chapters are devoted to as many clinical surgical situations.

The titles of a few of the cases are; pelvic tumor; plastic operation of the face; cyst in the left iliac fossa; trauma of cystadenoma of the breast; Volkmann's contracture; lengthening of the tendo Achillis; prolapsus recti; cutaneous syphilis, Salvarsan; inoperable sarcoma of face, Salvarsan.

THE SURGERY OF ORAL DISEASES AND MALFORMATIONS. THEIR DIAGNOSIS AND TREATMENT. By George Van Ingen Brown, D.D.S., M.D., C.M., Oral Surgeon to St. Mary's Hospital and to the Children's Free Hospital, Milwaukee, etc. Cloth, Svo., pp. 740. Engravings and plates. Lea & Febiger, Philadelphia and New York, 1912.

This is one of the best books published in America on the subject of diseases and malformations of the oral region.

The author has aimed to provide a work for consultation in the clinical application of the recent advances which have been made in the pathology and treatment of oral troubles, with special reference to their occurrence in the experience of the general practitioner.

Dr. Brown has been careful to limit his work strictly to the confines of oral territory, and therefore surgical treatment of the nose and throat are not found in the book.

Special attention is called to the chapters on "Harelip" and "Cleft-Palate," as the author has given these subjects a life-long study, and his conceptions and views of the subjects are therefore of special value and interest.

THORNTON'S MEDICAL POCKET FORMULARY. New (10th) edition. Containing over 2,000 prescriptions, with indications for their use. In one leather-bound volume. Price, \$1.50 net. Lea & Febiger, Philadelphia and New York, 1912.

The endeavor is made to include in these formularies only that treatment which is believed to be the most efficacious in a given case. Diseases are arranged alphabetically for the sake of expedition, and under each disease will be found the treatment that, in the mind of the author, determined by its history, is considered to be the most effective in that particular disease. Indications and annotations for the use of each formula is a special feature of value.

PROGRESSIVE MEDICINE. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences, edited by H. A. Hare, M.D., and L. F. Appleman, M.D. Volume I, March, 1912. Svo., pp. 377. Lea & Febiger, Philadelphia and New York, 1912. \$6.00 per annum.

The contents of this volume are especially attractive on account of their scope and the manner in which they are presented. The volume includes surgery of the head, neck and thorax; infectious diseases, including acute rheumatism, croupous pneumonia and influenza, diseases of children, rhinology, laryngology and otology.

SALVARSAN IN SYPHILIS AND ALLIED DISEASES. By J. E. R. McDonagh, F.R.C.S. Cloth Svo. pp. 152. Oxford University Press, New York, 1912. Price \$3.00.

The author claims for Ehrlich a place ranking with that of Jenner and Lister, and attributes the failures of Salvarsan to the abuses to which it has been subjected and the almost universal disregard which has been had for its limitations.

This work is a sane consideration of a subject which has occasioned more hysteria in medicine than any other discovery of the past twenty-five years.

Dr. McDonagh gives it as his opinion that where Salvarsan fails in primary syphilis it is due to belated treatment rather than the inefficiency of the agent itself. Salvarsan's success in rendering the syphilitic patient less infectious is emphasized, and its value in diseases allied to syphilis is given careful consideration.

Dr. McDonagh's book is a rational study of the pathology of Salvarsan and lacks the unsane fervor which has characterized nearly every discussion of the drug that has hitherto appeared. The work possesses great value for the general practitioner.

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EDITOR

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ORIGINAL ARTICLES

THE VACCINE TREATMENT OF SKIN DISEASES*

HALSEY M. LYLE, M.D.
KANSAS CITY, MO.

It is very interesting to note the number of discoveries that have been propounded within the last few years for the treatment of cutaneous diseases. Yet to my mind none has been developed more than the vaccine treatment or the bacterial injections.

When Wright, of London, first announced his work on opsonins, men from all over the world began to make reports of the most marvelous cures of the staphylococcic infections of the skin. Since this time many very valuable articles have appeared from time to time from such workers as Douglass, Potter, Webb, Schamberg, Gilchrist, Engman, Varney and others.

Leischman, while working with Wright, found that by mixing quantities of fresh blood with suspensions of the various microorganisms and keeping these mixtures at blood heat for a given time that a number of these organisms were ingested by the phagocytes. In other words, he found that there was present certain elements in the blood-serum which were capable of acting on the microorganisms in such a way as to render them easy to the phagocytic action of the leukocytes, naming it opsonins, meaning "I prepare a feast."

Through the technic set forth by Wright, Leischman and Douglass, they were able to measure fairly accurately the defensive power of an individual against organisms which were attacking him; and that the mere presence of these different microorganisms did not produce disease as long as the defensive power of the individual was sufficient to combat the attack. But if the defensive powers were weakened the germs elabo-

rated poisons and produced disease. They also found by raising the bactericidal power of the blood by injecting proper culture of the different bacteria there was a temporary reduction of the resisting powers, but continue the injections and the individual regained the resisting powers with usury.

Many cutaneous diseases are due to the influences of bacteria either primarily or secondarily. All of us have patients that seem prone to the staphylococcic infections, and according to Wright, their resistance is lowered against the invading organisms; heretofore we have relied on drugs and tonics to build up the resistance.

Now I will cite a series of histories of the cases treated by the vaccines or bacterial injections. Among them are sycosis, furunculosis, carbuncle, impetigo contagiosum, pustular, eczema and acne. Some were treated with autogenous vaccines, while others were given stock vaccines. No attention was paid to the opsonic index, but the dosage was regulated by the clinical manifestations.

SYCOSIS

CASE 1.—J. R. T., aged 31, came to office June 26, 1909, with marked pustular sycosis of bearded region and back of neck three months duration. Has been treated with ointments, lotions and x-ray, with no beneficial results. Smear taken and the *Staphylococcus albus* was found to be the invading microorganism. Vaccine made June 29, injected 50,000,000 bacteria into left arm. July 1, patient returned complaining of soreness at site of injection which lasted about 12 hours. No change in lesions. No new lesions were present that we could ascertain. July 5, injected 100,000,000 also opened quite a number of pustules on the left side of face, but would not touch those on the right side of face. July 9, patient returned with quite a few new lesions, the older lesions had taken on a different appearance. The inflammatory area around pustules had diminished considerably. Injected 125,000,000 July 13, general appearance of face improved. Pustules on neck drying up, all inflammatory areas disappearing. Injected 125,000,000 July 17, general condition markedly improved, no new pustules, old ones decreased in numbers. Soreness, so patient states, has left face entirely. Injected 100,000,000 fearing if I did not decrease dosage I might cause an outbreak. July 21, only four pustules on the face at this time, and around these there was no marked inflammation.

* Read in the Medical Section of the Missouri State Medical Association at the Fifty-Fifth Annual Session held at Sedalia, May 21-23, 1912.

Injected 100,000,000 July 26. Patient's face so near well I prescribed antiseptic and soothing lotions for the first time and let him continue on his journey as he was a traveling salesman. He corresponded with me for several weeks, and each letter stated no recurrence.

CASE 2.—C. B. R., aged 42, came to clinic at Post-Graduate Medical Dispensary Aug. 10, 1909, with some 25 or 30 small abscesses and pustules on face and neck, mostly around the hairs. Smear taken from pustules and *Staphylococcus aureus* was the disturbing microorganism. Vaccine made August 12. Injected 150,000,000 into left arm. August 16, patient complained of slight soreness at site of injection. No change in character of lesions as yet. Patient thought the soreness had lessened somewhat; August 18 patient returned with numerous new pustules and inflammation and tenderness increased. Injected 200,000,000 August 21. No new lesions and inflammation subsiding somewhat. August 23, condition very much improved, inflammation very markedly decreased, pustules drying up. Injected 150,000,000. August 26, patient's condition improved, no new lesions but still some inflammation. August 29, conditions about same as August 26; injected 150,000,000. Patient did not return to clinic but from history evidently he went on to complete recovery.

CASE 3.—J. C. L., aged 35. Came to dispensary Aug. 30, 1910. Had lesions on chin, upper lip and cheeks. Small abscesses and pustules around hair follicles, hairs loose, more or less of nodular conditions on upper lip, very sore and tender, lesions present two years. Injected 100,000,000 *Staphylococcus albus* into left arm. September 4, patient returned to clinic with some 10 or 12 new pustules. Injected 100,000,000 into left arm, September 8, no new lesions and soreness subsided somewhat, not so much inflammation around pustules. Injected 100,000,000. September 12, one or two new lesions, old lesions disappearing; thickness decreasing. Injected 150,000,000. September 17, there was no improvement at this time, if anything a few new pustules were present. Patient very much discouraged and never came to clinic again.

FURUNCULOSIS

CASE 4.—Furunculosis clinic patient came to the Post-Graduate Dispensary April, 1911. Some 20 boils on arms, back and buttocks. Patient anemic and looks very much run down. Has been riding blind baggage and evidently has had no decent environment for a long time. Injected 100,000,000 *Staphylococcus albus*. April 8, complains of soreness at site of injection; four new boils present; injected 200,000,000 and opened three of the largest abscesses which were exceedingly painful. April 12, no new lesions present and lesions that had been opened showed signs of healing. Injected 100,000,000. April 15, old lesions in about the same condition with a few new pustules on buttocks and arms, lesions were not nearly as large nor as painful as original lesions. Thinking patient was not getting sufficient dosage I injected 150,000,000 and told him to report in two days if any new lesions appeared. He did not put in an appearance for five days at which time all lesions were very much improved, the lesions that had been drained were just about healed and the other pustules were drying up. His general condition was a great deal better than at any time. Injected April 25, 100,000,000. No new lesions at this time, old lesions gradually subsiding. Patient did not come to clinic, so think he went on to complete recovery.

PUSTULATING ECZEMA

CASE 5.—Mrs. G. J., aged 52 came to office April 4, 1911, with well developed case of pustulating eczema of hands and fore-arms following dysidrosis: very itchy and painful. Skin very much macerated especially

between the fingers. Glands in axilla enlarged and very tender, this has existed for nearly four weeks. Believing the pustular condition to be a secondary infection, I injected 100,000,000 *Staphylococcus albus* into left arm and applied wet boric acid dressing. April 6, changed dressing. April 7, dressed hands in same manner, pain had been relieved to some extent. April 8, after dressing I injected 100,000,000, dressed hands daily until April 12. Patient said itchiness and pain had practically all disappeared, weeping condition about all gone, not much pus present. April 15, patient complained of hands itching and some little pain. I changed the dressing to wet carbolic acid. April 17, some few pustules on forearm itching and pain about the same. No undue inflammation. Injection 150,000,000 *Staphylococcus albus*. April 21, all pustulation practically ceased, leaving hands dry and skin had a harsh cracked appearance. Applied weak salicylic acid and tar ointment. April 25, no maceration, hands becoming smooth; no pain, nor itching. Injected 100,000,000 as matter of precaution. Patient returned in one week, May 2, with hands practically all well.

CARBUNCLE

CASE 6.—I am indebted to Dr. Harold Kuhn, for the history of this case. Mr. L. S., aged 25, came to the doctor's office with typical carbuncle on back of neck, with metastatic abscess over right ear. Incision made, culture obtained. Invading microorganism being *Staphylococcus albus*. Autogenous vaccine made. Standardized 280,000,000 bacteria to the c.c. Jan. 11, injection 7 min. into left upper arm. Jan. 12 no reaction. Jan. 13, 15 minims injected, considerable reaction at site of injection. Jan. 15, reaction subsiding. Jan. 16, brawny infiltration disappearing, very little pus; very little pain; wound granulating. January 16, injected 15 min., no reaction. January 17, no reaction. January 19, no reaction. January 20, lesion covered with crust, no pain, no induration. January 22, wound completely healed. January 25, injected 15 min. Within two weeks injected 40 and 50 min. doses for prophylaxis. No dressing except plain sterilized gauze.

IMPETIGO CONTAGIOSUM

Had several cases of impetigo and tried vaccine treatment, viz., injection of *Staphylococcus albus*, but also had to use local applications, as they were private cases. The duration of the disease was not lessened, nor was character of lesions changed to any degree.

ACNE VULGARIS

This is one of the most frequent of maladies dermatologists are called to treat and one of the hardest to handle. In 1899 Gilchrist reported finding a bacillus in pure culture from acne lesions, stating that this organism he believed to be the cause of the disease. Later, Fleming, of England, and Engman, of St. Louis, have written very instructive articles on the subject. In all these articles they state that the organism is exceedingly sensitive to culture, media and temperature. In the following reports you will see that this is painfully true. With the assistance of Dr. Hecker this bacillus was isolated and tried on thirty-eight different culture media, but we had no success in growing it.

CASE 1.—J. A. Hall, aged 20, June 20, 1910. Lesions had been present two years; bowels irregular; no digestive disturbances; urine normal. Lesions limited

to face and neck, consisting of abscesses large as pigeon eggs and smaller pustules. Papules and comedones. Skin thick and oily, scalp in pretty good condition. Some lesions had purplish hue and were very painful, and in nearly every pustule there was a comedo. The comedones were very much inflamed and some showed marked hardness at base, while others were in the stage of breaking down into pustules. Examinations of blood microscopically also urine were found normal. On microscopical examination of pustules many *Staphylococci albus* were found inside the pus cells. On microscopic examinations of comedones we found after washing and spreading on slide, a Gram-fast bacillus, also many *Staphylococci albus*. On further examinations we found at the bottom of comedones the acne bacillus. Smears of pus were taken and also comedones and planted on the different agars; the only growths obtained were *Staphylococci albus*. Then we made a vaccine from contents of pustules; standardized 1 c.c.=500,000,000 bacteria. July 1 injected 250,000,000 bacteria. July 4, patient returned complaining of soreness at site of injection; no change in appearance of lesions. July 7, no new pustules; injected 350,000,000. July 10, patient did not complain of any soreness at site of injection; lesions did not look so inflamed nor did pustules seem to be forming very rapidly. Also the purplish color around lesions was disappearing. July 12, condition about same as on July 10, injected 500,000,000. July 13, patient's face in very bad condition; pustules very much inflamed. Patient complains of soreness at site of injection. July 15, patient's condition about the same. Believing him to be in negative stage, injected 400,000,000. July 17, patient's condition very much improved; pustules fewer in number, the inflammation had subsided greatly and thickening around lesions decreased. July 19, injected 400,000,000. July 22, condition neither improved nor had it grown worse, so 500,000,000 was injected, believing increased dosage might be of assistance. July 25, increase in number of pustules and comedones, also face was very tender and sore; marked inflammation. July 28, inflammation had subsided, no new pustules; thickness markedly decreased; injected 400,000,000. July 31, marked improvement in every way. The pustules that were present were not deep nor were they much inflamed; oiliness of skin practically all gone; patient had to leave town for several weeks. On return September 1 found about a dozen active pustules on face. Smear taken and examined; no acne bacillus found but *Staphylococcus albus* plentiful. Another vaccine made and 400,000,000 injected. Sept. 5, general condition of skin good; comedones seemed to be in a condition that they could be expressed very easily. Only two or three new pustules. September 10, injected 400,000,000. The pustular condition that was present at last sitting had all disappeared but comedones seemed to be in an inflamed state and looked as if they would break down into pustules. We decided at this time that we had received all the benefit we could derive from staphylococcus injections, thinking from the state of comedones that acne bacillus was the trouble maker. At this time the patient had to leave town for about two months, so did not get to see his condition, but he wrote me saying lesions would crop out but did not last very long. Nor were they as sore as before. November 10, patient returned; on examination I found skin oily but not very much thickened nor did he have any large abscesses, but many small pustules were present on the face and neck. I purchased some acne bacterin and injected 50,000,000. November 15, no change in condition of face; injected 50,000,000 more. Nov. 18, face markedly improved; oiliness practically all gone; comedones decreased in number and those present were easily expressed; advised application of 25 per cent. alcohol, also injected 100,000,000 bacteria. November 25, condition of face markedly improved and patient very much pleased.

At this time he was sent out on the road and did not return for several months. He said he had had no large abscesses on his face nor did his face get sore like it used to. We then started acne bacteria again: 100,000,000. He received four injections of 100,000,000 acne bacillus and his face is absolutely clear. Three weeks later he called and had two or three small pustules on face but I believe he infected his face by shaving so did not give any injection. He was in my office Saturday a week ago and his face is absolutely clear.

CASE 2.—Miss T., aged 18, clerk, came to my office Oct. 2, 1910. Fine specimen of young womanhood. Family history negative; personal history: Lesions began to appear about age of puberty, no constipation, had had no illness for six years at which time she had scarlet fever, no digestive disturbances. Objective symptoms: Face covered with nodules, pustules and comedones. There was one large abscess on left cheek, bluish color evidently containing blood and pus. Pustules very much inflamed; face very sore to touch; skin thick and oily; quite a little scaliness in scalp. At this time I opened large abscess taking a smear from contents; also took smear of pustules. Several comedones were expressed. On examination pustules contained no Gram-fast bacillus but many *Staphylococci albus*. The comedones showed no Gram-fast bacillus but many *Staphylococci albus*. Oct. 9, vaccine made and 250,000,000 *Staphylococci albus* injected into left arm. Oct. 12, patient's face much inflamed around comedones, no change in pustules, probably a few more in number; arm sore at site of injection. Oct. 15, old pustules increased; no improvement, if anything the number of pustules increased; blue tinge of skin very marked; injected 500,000,000. October 18, pustules not so active; bluish or purplish color somewhat decreased. Face not so sore and tender. October 21, old pustules showed signs of healing; 500,000,000 injected. October 24, pustules showed process of healing but comedones were in a state of marked inflammation; no great improvement. Oct. 27, there seemed to be only 10 or 12 active pustules on face at this time and general condition of skin was improved, the bluish color and thickening markedly decreased; 350,000,000 injected. October 30, face had only six pustules and they were very much better. We were undecided as to improvement whether due to vaccine or menstruation. November 6, about twelve new pustules had formed and comedones in an active stage of inflammation; 500,000,000 injected. November 12, no new pustules; inflammation around comedones subsiding. Patient states she can notice very much change in feeling of skin and that the soreness and thickening has all gone. Very much pleased. November 17, condition about the same as November 12; injected 500,000,000. November 21, patient's general appearance very much improved; no active lesions present; redness disappearing. November 24, no pustules present; comedones present, but not in an active stage so expressed quite a number. November 27, no new lesions present, expressed comedones and gave her first application in form of soothing lotion; 500,000,000 injected, as a matter of precaution. Patient did not come to office for nearly two weeks, at which time her face was practically cured and on hearing from her occasionally she only had a few lesions now and then.

CASE 3.—Mr. H., medical student, aged 23. Came to this office with a marked case of acne. The lesions consisted of comedones papules and pustules. Three years duration. Face scarred considerably, also in thickened oily state. Had been treating face and had tried all common lotions, x-ray and internal remedies. Having heard of the vaccine treatment requested that we try it. I told him to get the acne bacterine and I would give injection for him. June 12, he brought vaccine and I injected 100,000,000 acne bacillus into left arm. June 15, he came to office complaining that

his arm had been pretty sore for 12 hours; no change in condition of face. I injected another 100,000,000. June 16, condition of skin much improved and some decrease in thickening of skin and oiliness; comedones showed no inflammatory changes; injected 100,000,000. June 20, face markedly improved. Muddy, yellowish, thickening practically all gone with rosy tint of skin supervening. June 25, condition not so well; a few pustules. I only injected 3,000,000 at this time, and told him to go a week without any treatment whatever. June 30, face much improved and no new lesions present and those of recent date were in a drying state; 3,000,000 injected, July 30, patient's face much better and as he wanted to go to the country on vacation I discharged him. When he returned in the fall he told me he had had but a slight recurrence once and at this date his face remains clear.

In conclusion will say that I believe the vaccine treatment is of great assistance in treating pustular conditions of the skin, such as sycosis, furunculosis, pustular eczema and secondary infections. As far as the treatment of acne is concerned I believe the staphylococcus vaccine is indicated in some cases, while in others the vaccine of the acne bacillus is par excellence, while in the third group a combination of the acne bacillus and *Staphylococcus albus* gives us the best results.

Rialto Building.

DISCUSSION

Dr. Joseph Grindon, St. Louis: My experience with the use of vaccines has been very favorable to some types. In pustular acne the results are often good, but the vaccines should be used along with the older methods. In furunculosis the vaccine will frequently bring about a cure. In the common pus sycosis of the bearded adult face, my experience has been disappointing while I have seen temporary improvement. Tuberculin in lupus has sometimes given very good results. I used the "B. E." following the plan employed in pulmonary tuberculosis by Trudeau I believe it is best not to increase the dose as long as improvement continues. With the other vaccines it is equally necessary to use precaution when approaching large doses. By overstepping the limit we are apt to produce over-sensitization and make the case worse again.

I once had a distressing experience of that sort; a case of lupus had shown marked improvement, but when I got up to the larger doses it again went back. I believe that in most cases the stock vaccines do quite as well as autogenous vaccines. There are cases in which the latter give better results.

Dr. Wm. Frick, Kansas City: The subject of this paper indicates a very important advance in the therapy of the pustular diseases. Consequently this is a very appropriate paper to be read in this sort of a meeting. My experience is somewhat like most of the men I have heard speak. Vaccine therapy is sometimes a brilliant success and sometimes not. We should select the proper cases to use it on. We should not rely entirely on the vaccine treatment of those cases. It is not always the organism that is at fault but some thing back of it such as intestinal disturbances. Look after the diet and it seems to me that the problem is well near being solved. In addition to the dietetic treatment we should use the therapeutic remedies. In regard to the treatment of these pustular diseases it is not always necessary to use vaccines. I would use local antiseptic methods of cure.

Dr. M. A. Bliss, St. Louis: I will mention a single instance. A boy 18 or 19 years of age was being treated for acne. He had received a large number of injections. On taking each injection for typhoid the acne showed a marked improvement.

Dr. W. L. Brosius, Gallatin: As very few of us from the country are so skilful in the treatment of the skin as Dr. Engman, of St. Louis, we have been driven to a trial of the vaccines. If we know our offenders we can probably get after them with the stock vaccines, but if we do not know them we had better remain with the autogenous vaccines.

Dr. George Dock, St. Louis: It strikes me that we have not advanced very much from where we were at first. At that time we believed that with autogenous cultures we could treat certain diseases with certainty. It is obvious that in the first place many cases treated with stock vaccines have improved. It is also an interesting thing that many so treated show no signs of improvement. I believe most of those cases would be as easily treated by other remedies. In these cases there is something else the matter which is more necessary to investigate than vaccines. The careful investigation of the patient is really much more important than the determination of the species of bacteria present. Much attention should be given to the diet. More cases will be cured by the correction of the bowel disturbances than by autogenous or stock vaccines.

PROSTATIC HYPERTROPHY: ITS ETIOLOGY, PATHOLOGY, DIAGNOSIS AND TREATMENT *

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In selecting me to present this subject I feel that your committee has made a mistake. I am not a pathologist; therefore, whatever may be said on the first two divisions of this subject must stand as facts or theories emanating from authoritative sources other than myself.

Guyon and his followers believed that prostatic hypertrophy was a local manifestation in the majority of instances of a general arteriosclerosis. Billroth and others likened the condition to fibroid tumors of the uterus, and therefore reasoned that the cause should be, and probably it is, the same. Harrison thought the initial change was in the base of the bladder, and that the prostatic hypertrophy was compensatory. Ciechanowski advanced the claim that prostatic overgrowth is due to the stimulation resulting from a low grade, sometimes latent, chronic inflammation, and supports his contention by the fact that he has found constantly in his microscopic studies, which were quite extensive and exhaustive, round-celled infiltration irregularly distributed through the stroma—most marked near the urethra—periglandular fibroblasts, with dilatation and catarrhal epithelial proliferation of ducts and acini. Previous chronic posterior urethritis is so often revealed by the history in this condition that one can hardly fail to lean toward this reasonable explanation of this pathologic phenomena. As this condition practically always occurs in men of advanced years, age is an acknowledged predisposing factor.

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The pathology of prostatic hypertrophy to be of practical advantage should be considered from two viewpoints: first, the gross pathology *in situ*; and second, the microscopic or structural pathology. Considered from the first point of view, we must understand the normal anatomy, structure, function, position and relation of this musculo-glandular sexual organ, together with the directions in which it must extend when one part grows more rapidly than another, or when the hyperplasia is general, to the end that a proper conception of its symptoms and its obstructive effects on the bladder, ureters, kidneys and other organs may be fully appreciated, and that the surgical measures necessary for relief may be directed through the route which offers the easiest line of attack on a given part or the whole of the organ, and withal assuring the best end-results.

It is claimed that a prostate that weighs more than 6 drams is an hypertrophied or hyperplastic prostate. This hyperplasia may be diffuse or it may exist in certain portions of the organ, as, for instance, in either lateral lobe, in the isthmus or so-called median lobe, or may occur in accessory prostatic tissue imbedded in the base of the bladder near the internal sphincter. If it occurs in both lobes evenly its anteroposterior diameter is increased and the urethra thereby lengthened. If one lateral lobe is principally involved the lateral diameter of that lobe being increased, the urethra is deflected to the opposite side. If confined to the so-called median lobe the vesical orifice is raised, producing a *bas-fond*.

The microscopic pathology oftentimes shows a decided glandular hyperplasia, with slight or considerable increase in stromal elements—the large, soft or adenomatous prostate. Again, we frequently find the fibrous elements greatly in excess with little or no glandular increase—the hard or fibrous prostate of moderate size. Occasionally both fibrous and glandular elements are seen to be greatly and almost evenly increased—mixed form or fibro-adenomatous prostate. In all these forms there is infiltration of the stroma with round cells, fibroblasts, or true cicatrices around the ducts, and acini and proliferation of their lining epithelium; not infrequently there are small retention cysts and pus foci, amounting in some instances to distinct abscesses; and often amyloaceous bodies are to be seen.

The diagnosis of prostatic hypertrophy is seldom made until it begins to produce symptoms, and while it is a sexual organ, yet it is to the urinary system rather than to the sexual that our attention is first directed. In many cases the prostate may reach enormous proportions without producing any disturbance whatever. It is more the direction or position the hypertrophied mass occupies that causes the symptoms than the size. The first symptom which may cause him to call for assistance is not infrequently a sudden and complete retention, although careful inquiry will

usually reveal that he has been previously annoyed by symptoms due to obstruction, i. e., frequency, most marked at night or in the early morning hours, slowness in starting the stream, loss of force and dribbling. Often, in addition to this, there exists or supervenes at a later period the symptoms of cystitis, pyelitis, pyonephrosis or pyelonephritis, attended by gastro-intestinal disturbances and a uremo-septic condition of greater or lesser intensity. Catheterization reveals a lengthened urethra and a certain amount of retention, while the stream may lack force, showing a degree of vesical atony. The sound may be deflected to one side or the other, or may require extreme depression of the handle or a special curve to pass into the bladder, showing distortion and elevation of vesical meatus.

These features, together with the finding of a mass surrounding the neck of the bladder by rectal palpation, clinch the diagnosis of prostatic hypertrophy, although the cystoscope can frequently be used to further confirm it. The latter instrument, however, is of more value in determining the degree of intravesical growth and involvement than it is as an actual diagnostic necessity.

In taking up the treatment, we realize fully the diversity of opinion held by the various members of the profession on the subject. However, on the main points there should be, we believe, no division of opinion or practice. Those whose prostatism is due to hypertrophy should be divided as regards treatment into four classes:

1. Those in apparent good health, but who complain of the symptoms of obstruction, i. e., nocturnal frequency, slowness in starting the stream, loss of force, dribbling and a moderate retention.
2. Those suddenly attacked with acute retention and who, on inquiry, confirm or deny the previous existence of the above symptoms.
3. Those that have been compelled to adopt catheter life, and who give a history of one or more acute exacerbations of urethro-cystitis, and whose urine shows evidence of ammoniacal decomposition, pus, essential albumin, etc., together with a chronic toxicosis and gastric disturbance.
4. Those that have all the conditions mentioned in 1, 2 and 3, plus a sudden acute retention or incontinence of retention, attended by great prostration due to a profound uremo-septicemia with a gastro-intestinal breakdown.

In the first class there should be no middle ground. Prostatectomy should be advised. This class of cases occupies the same relation to mortality and end-results from a prostatectomy that an appendectomy does to a chronic catarrhal appendicitis.

Class 2 should be relieved by immediate catheterization if possible. If catheterization is not possible, suprapubic puncture with a trochar may be performed, or preferably, the more exact surgical measure of cystotomy by the same route, and

drainage established with the immediate removal of the prostate, if patient's condition and consent permit this procedure. If drainage only has been accomplished by any of the above methods, prostatectomy as an interval or secondary operation should be advised as soon as the effects of the acute condition have passed. Immediate prostatectomy here bears the same relation as regards mortality and end-results to this class that immediate appendectomy does to an acute catarrhal appendicitis, and an interval prostatectomy the same that an interval appendectomy does to a recurrent catarrhal appendicitis.

Class 3 calls for drainage either by continuous or regular aseptic catheterization or by cystotomy, with the use of diluents, urinary antiseptics and eliminants as a preliminary in most instances, although a certain proportion of this class will stand the added shock of an immediate prostatectomy. Where drainage only has been done prostatectomy should be advised as soon as the pus, albumin and toxemia have been reduced to a minimum. Here immediate prostatectomy occupies the relation to this class in regard to mortality, morbidity and end-results that a primary appendectomy does to acute infective conditions in and around the appendix, attended by a certain amount of septicemia, and a secondary prostatectomy is successful in almost the same ratio to a deferred appendectomy in drained cases.

In considering Group 4 we recognize a class that is badly poisoned, in whom the vital functions and resistance are oftentimes reduced to the very lowest ebb. Manipulation or operative measures of any kind are attended by great hazard. The demand here is not the immediate removal of the obstructing prostate. Drainage is the urgency, and it should be instituted and maintained by that method and route which can be most quickly, safely and satisfactorily utilized. Immediate prostatectomy is in most cases clearly contra-indicated. Many of the most extreme cases will die in spite of drainage, certainly without it, and a great per cent. of those that do survive drainage will succumb with the added shock of a prostatectomy. Those that react as a result of drainage can be subjected to a prostatectomy at a later date, not too far removed, with a greatly lessened mortality, an improved morbidity, and with much more satisfactory symptomatic end-results than when the operation is attempted as a part of the primary procedure. Here drainage occupies a similar relation to these patients that drainage occupies to those suffering with an acute suppurative or gangrenous appendicitis with peritonitis and a general septicemia or septicopyemia. Secondary prostatectomy in this class offers much the same per cent. of chances from all points of view that a secondary appendectomy does in cases of appendicitis that have been drained *in extremis*.

In dealing with the treatment we have intentionally neglected to take up the so-called palliative measures, believing that the time has arrived when this condition is so well understood that it leaves us no excuse to hope for a betterment of pathology or a permanent mitigation of symptoms by any measure other than a prostatectomy. Diet and hygienic regimen are of service in the prevention of acute exacerbations, as are mild unirritating anti-septics, both internally and locally in the form of irrigations. The instrumentation necessary, however, in the application of the latter offers an added source of irritation with the possibility of added infection. The various methods of prostatotomy are also to be classed as pernicious, inasmuch as they offer a false sense of security, giving only temporary symptomatic relief and in no degree improving the morbidity. If we but stop for the moment and think we will readily see that growths of this character do not disappear of themselves, or as the result of any method of treatment aside from actual removal. Neither do they remain quiescent, at least not for any considerable period—rather they continue to grow on account of the existing stimulus and as a result of repeated acute exacerbations, due no doubt to recurring infections.

Corby-Forssee Building.

DISCUSSION

Dr. T. E. Potter, St. Joseph: To me this has been a very interesting paper in every particular. Dr. Elam's paper opened the subject splendidly, and with the pictures given by Dr. Lewis following, these men have certainly given us most valuable information.

It happens that very few of us are prepared to use the cystoscope properly; and it is very fortunate to have a neighbor like Dr. Lewis where we can take a patient and let him diagnose so far as he can with the cystoscope and put us on the right track. We have these troubles all over the country. Men without means, and men even with means will not consent to such examinations and the result is we are forced many times to do the work without being able to make a thorough examination, as has been shown we should make. We can, however, come to fairly accurate conclusions as to the necessity of an operation without such an extensive examination and every general practitioner in the whole country has these cases to deal with. If the case reaches the period where the catheter has to be used to give relief, we all know its use is only palliative, and will sooner or later bring on a more disastrous condition, such as malignancy for instance. The patient cannot have the physician three or four times daily to use the catheter, and as he does not understand surgical technic, the results are always to use it at times when it is not sterile. The question naturally comes to me, what are we going to do? Do we have to have this technical examination made? These patients may have a septic bladder, or malignancy of the prostate, and the suffering he has to endure is something terrible; the general surgeon is forced, without being able to have his patient undergo this examination to find out whether there is a large middle lobe contraction, or hypertrophy, to operate. I make it a rule when I find a man suffering from the symptoms laid down by Dr. Elam, not to waste time, because the

man may lose his life in three or four days. He must be relieved. If he is ready for the operation and willing to submit, make a prostatectomy. You can by putting the finger into the rectum and pressing on the abdomen outline the prostate. You can in this way find out whether it is enlarged or not, then make your incision, though you may not be able to locate the three lobes until an exploratory operation or incision is made. Correct whatever you find, and do not forget to drain properly and well.

Dr. Lewis would almost discourage us in doing anything if we had to go through all the trouble and follow the technic as he has outlined.

Dr. W. T. Elam, St. Joseph, closing: I thought some of the members might think my position in regard to dealing with prostates was radical. I claim rather instead of it being radical it is conservative.

Ten to fifteen years ago when surgeons would get up in medical societies and claim it was their habit to operate on cases of mild appendicitis as soon as they could get the patient's consent, they were immediately voted to be radical and dangerous, but now they are recognized as advanced conservatives. These men now know that the longer they allow their patients to go without an operation the more serious the operation will be when they do operate as the condition will become worse with each succeeding attack, thus making the operation more extensive with less to be promised in the shape of after results on the account of the great amount of pathology with which they are likely to come in contact in and around the appendix, if in truth they do not lose their patient on account of peritonitis and septicemia.

When mild symptoms of prostatic involvement occur there is no question as to what will eventually take place, although there may be no systemic involvement or back pressure when the case is first called to one's attention. The individual will sooner or later have more or less obstruction and uremo-septicemia, while the ureters and kidneys are in time sure to be involved. Why wait until the man comes to that point?

Early prostatectomy is attended with no more mortality than an early appendectomy. Frequently one finds it necessary early to only remove a portion of the prostate, i. e., the diseased or hypertrophied portion. It is not the operation that kills it is the condition in which you or someone else has allowed the patient to drift into. Patients that die from a prostatectomy will, with a few exceptions, die in spite of an operation, rather than on account of it. If you wait until your patient's kidneys are crippled and the system is poisoned with urinary salts and septic products, your mortality is sure to be high. If you go in early, drain, and remove the prostate between acute attacks there is practically no mortality and the morbidity is materially benefited. If you operate in the first class of cases described in the paper you do not have the morbidity to contend with. In the last class, those coming to the surgeon for operation who are suffering with back pressure and with pyogenic infection of the kidneys and their consequent systemic disturbances, you can operate on such cases, and relieve with drainage, but nine out of ten will die, especially if you add to this condition the shock of a prostatectomy, but if you drain, wait a few days, give plenty of water, then go in and remove the prostate, you may prolong his life and get rid of the symptoms that are so annoying and unnerving in this class of cases, we repeat the first indication here is drainage. In the mildest cases there is only one thing to do, although it is hard to get the patient's consent, and that is to remove the prostate before there is any additional pathology.

I want to congratulate Dr. Lewis on his part of this symposium. Word pictures are not as effective as demonstrations upon curtains, especially when these pictures are explained by a man who knows what he is describing.

As to the cystoscope there is no question as to its value. As to the ability of different men to use the instrument there is a great difference as well as to their ability to interpret what they see. In using the cystoscope it tells you what you can expect; it tells you whether you have contraction of the internal sphincter which can be relieved by incision, whether you have a stone to deal with, or whether you have a simple hypertrophy of the prostate, and its location when present and as to whether it is better to attack it through the perineum or suprapubically.

ANESTHESIA BY THE INTRATRACHEAL INSUFFLATION OF AIR AND ETHER *

W. E. LEIGHTON, M.D.

ST. LOUIS

The introduction of intratracheal insufflation of air and ether by Meltzer and Auer of the Rockefeller Institute of New York, demonstrated a new physiologic principle. They showed that it was possible to ventilate the lungs of an animal so that an interchange of oxygen and carbon dioxide would take place without respiratory effort. By this method they were enabled to maintain life in completely curarized animals for many hours, or until the effect of the curare wore off.

Normal respiration consists of two factors: First, the external respiration consisting of the inhalation of oxygen and the exhalation of carbon dioxide; second, internal respiration, which represents the interchange of these gases in the alveoli of the lungs.

Intratracheal insufflation eliminates external respiration and ventilates the lungs by the introduction of a current of air directly to the bronchi whereby internal respiration alone maintains life.

The demonstration of this principle was promptly applied in thoracic surgery, which has been developing in the past few years by the aid of positive and negative pressure cabinets.

It was found that intratracheal insufflation rendered possible not only all that could be done under the influence of the pressure cabinets, but even more by adding an element of safety which neither cabinet possessed, and made universal the problem of thoracic surgery which was prohibited except in a few clinics, by the enormous cost of such pressure cabinets.

Not only was the method found applicable in thoracic surgery, but in all surgery rendered difficult by the problems of intermittent anesthesia and complications; such as resection of the jaw, excision of the tongue, excision of the larynx, intrabuccal operations of all sorts and even in cerebellar surgery, it is strongly advocated.

In addition to these surgical procedures, the intratracheal insufflation of air is applicable as a means of artificial respiration to sustain life.

* Read in the General Session of the Missouri State Medical Association at the Fifty-Fifth Annual Meeting, held at Sedalia, Mo., 21-23, 1912.

In all problems involving the cessation of respiration, as drowning, poisoning by morphin and strychnin, the method will find a place, and much has been accomplished by experiments on animals to warrant the assumption that it will become an important factor in resuscitation.

Meltzer gave a dog four times the lethal dose of strychnin, then prevented the convulsions by the injection of curare and by means of intratracheal insufflation of air kept up a good ventilation until both the strychnin and the curare were excreted and the animal recovered.

Quinby reports that the lives of patients suffering from brain abscess and morphin poisoning have already been saved by it.

Intratracheal insufflation, in brief, consists of passing a catheter through the mouth into the trachea to the bifurcation. By the means of a bellows connected with the catheter, a current of air is passed in a continuous stream directly to the bronchi. The escape of the air takes place between the catheter and the tracheal wall. The constant current ventilates the lungs without respiratory effort.

For the purpose of anesthesia, air or ether or nitrous oxid may be employed in the same manner. The induction of the anesthesia is started by any of the usual means; ether on the open mask or the nitrous oxid ether sequence. When surgical anesthesia has been attained, the mouth is held open with a gag and a catheter two-thirds the caliber of the trachea, or about the size of a 20 to 24 F. catheter, is passed into the trachea either by direct view with the laryngoscope or by the Cotton introducer. Cocainization of the larynx and trachea is unnecessary and consumes valuable time without enhancing the anesthesia or result. The catheter is passed to a distance of 25 cm., which in the adult is about 1 cm. above the bifurcation of the trachea. Having ascertained that the tube is in the right place, which is shown by the escape of the breath, it is connected with the apparatus and a current of air and ether is constantly supplied to the lungs. The apparatus is so arranged that only air or a mixture of air and ether may be passed through the lungs. During anesthesia it has been found a good rule to interrupt the current of air five or six times a minute for a period of two seconds.

The effect of the anesthetic disappears very quickly after anesthesia, when air is insufflated a few minutes before removing the catheter. Following a short period of apnea restitution of the normal respiration occurs.

The anesthesia is beautiful to watch. There is not a sound from the patient, he lies on the table motionless with suspended respiration. While the appearance of the patient is somewhat disconcerting, one can rest assured that he is bound to get sufficient air, and that no blood or mucus can be aspirated into the lungs; that the minimum of ether will be used, and that there will be no sub-

sequent vomiting or complications. At the first appearance of a dangerous symptom the ether may be shut off and artificial respiration instituted by the mere turning of a valve.

How does the safety of the method compare with other methods of anesthesia? Up to date I know of no death that can be laid to the insufflation method in something like 500 or 600 cases, and no case of pneumonia or bronchitis has been reported. Nausea and vomiting in my own series have been *nil*; while in Elsberg's cases, as quoted by Meltzer, only four vomited out of 125 cases operated on for various conditions.

When one contrasts this last fact with the statistics of other methods of anesthesia which, according to Crile, are 17 per cent. for nitrous oxid and oxygen and 42 per cent. for ether by the open method, and about 25 per cent. for the gas-ether sequence with the closed inhaler, we can well account for Meltzer's enthusiasm when he stated before the American Medical Association in 1911, that he considered intratracheal insufflation the ideal method for administration of ether anesthesia.

Experimental work on dogs seems to confirm the apparent safety of the method. Meltzer kept eight dogs under profound anesthesia for twelve hours without a disturbing incident during or following anesthesia. Even in these prolonged anesthetics the dogs recovered in less than half an hour. In nine dogs in which he had produced lobar pneumonia, insufflation was practiced for one hour every day for eight or ten days without a single animal succumbing to pneumonia.

The dangers of aspiration were also given a severe test. In a series of animals under insufflation anesthesia vomiting was produced and in another series the mouth was filled with a suspension of powdered charcoal. In not a single case was vomiting or charcoal found in the trachea or bronchi.

Quimby and Morris in their investigation on dogs, found that the rate and regularity of the heart beat was unaltered. No injury resulted to the larynx or trachea, and no pneumonia followed its use. Histological examination of the lungs showed them to be normal and free from capillary hemorrhages or emphysema.

In addition to many experiments on animals I have employed the method of intratracheal insufflation successfully six times on human beings, two of these being for thoracotomies and the remaining four were for intrabuccal operations. No difficulties were experienced with these cases and no complications attributable to the method resulted. In one case after the catheter was passed the patient coughed it out and swallowed it with the result that the stomach was distended. The condition was at once recognized and the catheter withdrawn and reinserted with no unfavorable outcome. In another case, owing to the spilling of the mercury of the manometer the

catheter was withdrawn and operation finished with chloroform. Two failures to pass the catheter were due to not having the proper instrument to introduce it.

MEDICAL ECONOMICS *

A. H. MADRY, M.D.

AURORA, MO.

Our lexicographers should cease to define medical economics as "a collection of rules observed in the practice of medicine and surgery." If there is anything it is *not*, it is just such a collection of rules. Not only that, but this new science did not appear until the iconoclast had violated almost all the rules and had invaded medical pantheon itself and had broken the greater part of our most popular idols into fragments. Even the god at whose shrine the ethically inclined bowed, has been reached and badly disfigured and his ironclad rules crushed to pieces. The breaking of old rules, the changing of concepts and the disposition to seek out and rightly interpret Nature's laws, regardless of the *ipse dixit* of any father of medicine, has opened the way for the development of this, the medical division of the science of exchange.

The medical profession has sustained much loss and has had its progress woefully impeded through its failure to recognize the existence of the laws of exchange and to profit by them. Had we gone to the mining district of southwest Missouri some years ago in search of the ores of zinc, we would have found in the waste piles and forming a large part of those piles, thrown out as worthless, all the zinc blend hoisted in the mining operations. The miner sought silicate of zinc and the ores of lead and the more "jack" he mined the less profitable were his labors. In like manner, he who would excavate the vast waste pile of medical lore of the past and present, could extract from these mud and flint mountains of lost labor and wasted medical exertion the crystallized truths of medical economics, and what zinc blend now gives to the miner and to commerce, medical economics, when correctly assayed, will be made to yield the physician and the sociologic world, viz., greater sustenance for the one and richer values for the other.

The day has come when teacher and journalist should recognize this new but valuable product of professional endeavor before casting it to the pile of the odds and ends of medicine. It is worthy of consideration and deserves to be treated with even more respect than physiology, chemistry or bacteriology.

Medical economics should be defined as that division of, and contribution to, political economy made by, and resulting from, the practice of modern medicine.

Political economy, or the science of exchange, is the peculiar product of our present civilization and has been defined as "that branch of political science or philosophy which treats of the sources and methods of production, preservation and distribution of the material wealth and prosperity of nations." There could be no such science without thick population and a diversification of industries.

The paucity of product of the industrial life of the ancient Greek, the attitude of the learned to the laborer and the merchant, the supremacy of ethics and the mind untrained to factual analysis prevented the evolution of economics into a science. Plato, Xenophon and Aristotle are all of the ancient civilization that have left writings of any economic value. Plato's ideal ethics suggested communism. He recognized the importance of economics on history, but, being a fatalist and deteriorationist rather than an evolutionist, his writings can be classed but as an accidental. Aristotle failed to recognize money as a circulating medium—the representative of values—and would tolerate growth for nothing "that had not a beginning in Nature," but was opposed to common ownership. Xenophon, though entertaining the ethical ideas of his time, yet more nearly in accord with the economist of to-day, approved of the interest of money and encouraged the state to foster trade and increase the money supply. The classical idea was that buying, selling and getting gain was unworthy of thought by great minds, and the idea of Christianity under the narrow interpretation of the later time, *against* all worldliness, and *for* the most straightlaced piety, *alias* poverty.

Economics therefore, medical included, regardless of the fact of a denser population and greater diversification of industry of the present, could not grow in a religious, educational or ethical atmosphere, so unfriendly as that of the past, ancient or medieval; nor is that of the present time entirely congenial. Nevertheless this new force, call it science or philosophy, has now come to stay and benefit rather than injure by its presence.

Medical economics should be treated under two heads; first, that in which the physician and his co-laborers are considered; and, second, the benefits of their collaboration on commerce and the distribution of these benefits.

Under the first head, we would study the qualities of mind and the actuating principles that should be found in every one who would take up the study of modern medicine. Those who are commercially inclined or are actuated by sinister or selfish motives can seldom be fitted into the body politic of the medical profession in such a manner as not to disturb the normal function of the profession. The hands of the finest chronometer the world ever saw would not truthfully chronicle the time, if one of the wheels of the finely adjusted mechanism carried just one

* Read in the General Session of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

cog too many or one too few. It might be no friction would come from the wheels in contact, but the hands on the dial plate would record the error. So will it be on the dial of modern medicine, if the medical organization does not perfect and carefully polish the internal parts of its mechanism.

We have reached a stage of development in our professional advancement where it is necessary that all who would join the ranks of our noble fraternity be taught the importance of organization and the duties and responsibilities that fall with absolute certainty on every integral part, that each may properly fit himself for performing harmoniously and well every function that he in the grand organism will be expected to discharge. Our state constitution recites that "The purposes of this Association shall be to federate and bring into one compact organization the entire medical profession of the state of Missouri, and to unite with similar associations in other states to form the American Medical Association, with the view to extension of medical knowledge, and to the advancement of medical science; to the elevation of the standard of medical education, and to the enactment and enforcement of just medical laws; to the promotion of friendly intercourse among physicians, and to the guarding and fostering of their material interests, and to the enlightenment and direction of public opinion in regard to the great problems of state medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life."

The law of evolution, written in the earth's life history and demonstrated in our commercial development, is but enforcing its demand on the medical organization, that we attain that perfection of parts and power of unity that will qualify us to accomplish on a grander scale the noble purpose modern medicine has in view. So long as the individual member is allowed to begin his professional career uninformed as to medical organization, so long will that organization be incoherent and fall short of its possibilities. Let us endeavor in the future to perfect the physician as the source and our organization as the method of the production of that wealth and prosperity that is, at least in part, our mission to give.

If we fail to properly educate in the economics of their profession those who have chosen medicine for their life work and they through this defect become dwarfs and are charges on, rather than credits to, our brotherhood, they are to be pitied instead of censured, and we ourselves should bear the blame while the state and nation must suffer irreparable loss from their stunted capacity for rendering service.

How well nigh impossible will it always be for the medical profession to render the service to state and nation and to itself that is within its purview while we fail to properly prepare the

individual member for obligations to, and duties in, that organization.

A sound mind in a sound body was considered by the philosophers of Greece and Rome as the greatest blessing any one ought to desire. A nation whose citizenship could be composed entirely of members having sound minds in sound bodies would indeed be an ideal one and each member of such a nation would be a unit in the assets of real value. This idea has grown enormously in recent years, but it has yet to grow before the true economy of genuine conservation can be practiced. It is true we have sporadic cases in which efforts are made to preserve the health of the citizen and soldier that each may keep at the point of highest efficiency in service. The digging of the Panama Canal has thus been taken out of the class of impossibles and rendered easy by the practice of principles drawn from the warehouse of modern medicine; and the massing of troops on a frontier there to be decimated by typhoid fever no longer has its horrors while this same warehouse remains unlocked. These examples alone, it seems, should at once open the way for a practice of a broader conservation, a less limited economy; but selfishness, ignorance and commercialism continue to impede progress. We get an example, however, of present conditions in a state's appropriating \$80,000 to protect game and stock its lands with ring-necked pheasants, its streams with rainbow trout; and \$3,000 to protect the lives and care for the health of its citizens. If a ring-necked pheasant or a rainbow trout is the unit of value in the state's assets, the eighty thousand was too little and the appropriation for the board of health too great.

Let no one dream that our state has no preventable waste. One of our best counties is paying out more than one-third of its appropriations for the support of its charges at home and in the various eleemosynary institutions of the state. Suppose we place this draft on the resources of this county at \$11,000, which is less than the real amount actually expended, and multiply this by one hundred—fourteen less than the number of counties in our state—and we have the enormous sum of \$1,100,000 thus expended. This enormous expenditure does not include what the state and various organizations have paid out in addition for the maintenance of our unfortunate people. If we can avoid the half of this loss by preventing half the number from becoming charges on the state through the practice of preventive medicine, the saving would be considered great; but this falls short since it takes no account of the fact that at least half of the saved ought, through their productive powers, become assets of value to the state. When she learns to count as her assets the honest, intelligent, healthy, efficient citizen and his family, she will have more use for her board of health and her licensed physicians, and probably not such strenuous duties for her game wardens. When the nation learns that

its efficient citizens and soldiers are at least among its assets, there will be use for the Willys; then the embalmers of beef will go out of business and the National League for Medical Freedom will get a much needed rest. How long must the medical profession be bound down to the chariot wheels of sordid commercialism? When can we be allowed to demonstrate the true economy our profession would substitute for the present waste? As soon as we ourselves have learned the economics of our profession and how to practice it.

Let every medical school give a strong course in medical economics. This will materially hasten the day. These need to teach the future physician that the actuating motive should not be for the wealth he can make out of it for himself, but for the blessing he can be to mankind, his profession and to himself; but that the satisfaction of duty well done is *not* to be the sole recompense, and that to him who discharges faithfully the duty entrusted to him is due a financial reward, commensurate at least in part with the labor performed. It is this financial reward left undistributed that remains to-day largely the real cause of inefficiency and unethical living of our professional life. Too often the physician begins his professional career with high ideals and well equipped for his duties and responsibilities save for a knowledge of the value of the physician's services in dollars to the commercial world. The want of this knowledge permits the confiscation of his earnings and compels him to turn his attention to gold mining stocks and other speculative and commercial enterprises, or to launch out into the uncharted sea of irregular medicine. Proper instruction in economics will teach the future physician the conservation of resources that strengthens character, builds professional reputation and inspires self-confidence; and at the same time it will enable him to give to the world the happiness and prosperity it has a right to expect from his labors.

It will require the assistance of the whole medical organization to work out the idea of greater conservation that is now dawning on our national government. When our nation learns that the purpose for which government was instituted *was not* and *is not* the impossible task of taxing itself rich, or that which is equivalent, increasing the sum total of its resources through a system of taxation that results in an unequal distribution of wealth among its citizens, we may be able to demonstrate to it the true economy of increasing the longevity of its citizens and multiplying their efficiency through the promotion of health and happiness. Instead of one man through fear of dying rich, dotting the country over with capacious libraries, and another, with bald head and pious soul, establishing institutes for the promotion of scientific research, let us show this government *our army of bright, brainy philanthropists*, each willing and ready to pay back not simply a

part, but a thousand-fold benefit, from any favor bestowed. Give us a chance to show visitors to our realm that "not one is king, but that 'we' are all kings," and are of a nation in which health is protected, happiness promoted and efficiency is cultivated in the individual to the highest possible degree, and in which each citizen has been given the best opportunity for becoming a perfect unit of a modern civilization.

Our profession must learn in the schools *medical finance* and *how to apply it; medical waste* and *how to avoid it*. This, like microscopy or any other branch of the science of medicine, can be learned out of school, but like them not so easily nor perfectly nor to such a splendid advantage as while in school. To learn this will reduce the tendency to failure in professional life by lessening the experimental and increasing the practical. It will benefit medical organization through improvement of quality of its membership and broaden our blessings to mankind through the greater harmony promoted in our organization; and it will diminish to the state or nation the loss resulting from premature death, morbidity and preventable inefficiency of its citizens.

FRACTURES OF THE LARYNX

W. E. SAUER, M.D.
ST. LOUIS

Fractures of the laryngeal cartilages are not common occurrences, but they are usually very serious. Death may occur at the time of the injury from asphyxiation due to displacement of the cartilages, or later from dyspnea due to edema or emphysema. Up to 1898 only 144 cases of fracture of the larynx had been reported; these were collected by Hopmann. In two of these cases the fractures occurred spontaneously from violent coughing; the remainder occurred as the result of direct injuries, such as kicks from horses, boxing, wrestling, choking in attempts at murder and falling against sharp objects with the neck extended. Numerous experiments on the cadaver have proved that a great variation as to the consistency of the laryngeal cartilage exists, even within physiologic limits. Scheier attempted to fracture the larynx of a woman who had died at the age of 19, of a puerperal fever, by striking against the larynx with his closed fist. After repeated attempts he was unable to fracture any of the cartilages, while in another woman of the same age the thyroid cartilage was very easily fractured. He was also able to fracture these cartilages in fifteen other cases in the same manner. He also substantiated the findings of Patenkos, who found that post-mortem fractures of the larynx frequently occur from careless handling of the bodies.

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The thyroid cartilage, especially the upper horn and the lateral plate, is most often fractured. The cricoid is less often fractured, but is all the more serious, as in most of the cases death quickly follows. Simple fractures of the thyroid are usually vertical and close to the median line; fractures of the cricoid are rarely in the middle line; they occur most often as fractures of both sides simultaneously. In severe injuries the cartilage may be badly crushed. In those cases occurring with fractures of the facial bones, clavical, sternum and ribs, the fractures of the laryngeal cartilages are frequently overlooked.

The symptoms produced by these fractures are very variable, depending on the location and extent of the injury. Local pain, tenderness and swelling, more or less interference with breathing, phonation and mastication occur. Hemoptysis may be marked, and asphyxia by sudden stenosis may occur early. The majority of fractures show a change in the configuration of the neck, a flattening of the *Pomum Adami*, abnormal movement of the cartilage and crepitation. Emphysema may be present, and when present spreads rapidly. In all the reported cases there was a loss of consciousness following the injury; in some it was only momentary; others were unconscious for as long as fifteen minutes. There is usually a severe coughing spell with a bloody sputum immediately following the return to consciousness. Following this the patient may quiet down and be fairly comfortable, depending, of course, on the extent of the injury. In a case reported by Thomas the patient walked several kilometers after the injury, and died shortly after reaching the hospital. In some cases where the mucous membrane is torn, severe hemorrhage may occur with emphysema; this emphysema may increase rapidly with each paroxysm of coughing. As stated before, the symptoms depend on the extent of the injury. As a rule, the physician does not see the case until there is marked swelling of the neck, making an exact diagnosis not always possible. The diagnosis can be made when there is an evident flattening of the *Pomum Adami*, crepitation of the cartilage or unusual mobility; crepitation, however, is not often present.

The laryngoscopic examination should never be omitted. In cases of one-sided fractures the mucous membrane will show extravasation of blood with swelling of the epiglottis. The aryepiglottic folds and false cords and the vocal cords may not be seen, or the cords may be ruptured, as in a case reported by Schnitzler in which the free end of the cord could be seen moving up and down with each inspiration and expiration. Shield reports a case in which a piece of cartilage had been pushed between the cords: this was not seen until a week following the injury, after the swelling in the larynx had subsided. According to St. Clair Thompson, a skiagram will generally reveal the fracture.

The prognosis is generally grave: the recorded cases show a death-rate of from 70 to 80 per cent. The more recent cases show an improvement, the mortality being reduced to 37 per cent. Even with this improvement, fracture of the larynx must be regarded among the most serious of injuries; complicated cases with a tearing of the mucous membrane followed by hemorrhages or emphysema, give a specially bad prognosis. Some of the simple cases heal spontaneously and are not discovered until examined laryngoscopically, even years later.

The treatment of these cases is chiefly surgical. An important point is to quiet the patient and allay the cough by a morphin injection and reduce the swelling by cold applications to the larynx. An immediate tracheotomy becomes necessary when there is any marked interference with the breathing or if there is any emphysema present, or if there is much mobility of the cartilage. In the beginning it is an easy matter to perform a tracheotomy, but in the presence of an emphysema or much swelling it may be very difficult.

If possible a thyrotomy or laryngofissure should be done instead of a tracheotomy, as in opening the larynx an opportunity is given to remove any clots or splinters of cartilage, or fragments of cartilage may be replaced. Bleeding points may be controlled and tampons inserted, thus preventing any adhesions which are apt to occur and produce permanent stenosis. In chronic cases where a stenosis has formed, the stricture may in some cases be dilated by the introduction of O'Dwyer or Schroetter's tubes. These failing, the operation of laryngotomy as performed by Killian offers the best means of restoring the normal lumen of the larynx. This operation consists of dividing the thyroid cartilage in the median line, including, if necessary, the cricoid, both anteriorly and posteriorly. The scar tissue is removed with scissors, after which the skin is stitched to the mucous membrane. A soft rubber tube is then inserted into the larynx just above and tied to a tracheotomy tube to hold it in place. The wound is packed with gauze, the dressings are changed daily, a larger tube is inserted each day. The effect of the soft rubber tube is to cause an absorption of the remaining scar tissue and inflammatory deposits. It also permits an epidermization of the interior of the larynx; after this epidermization is completed the tube is removed and the wound is closed.

In conclusion I wish to report a case of fracture of the larynx in a boy of 14 who had been kicked by a horse, striking him on the left side of the neck. At the time of the accident, the patient coughed up large quantities of blood, and soon noticed a difficulty in breathing, with hoarseness. These symptoms grew gradually worse, until he could speak only in a whisper and could breathe with difficulty. The cough and bloody expectorations ceased without improvement in breathing.

I did not see this case until six weeks after the injury. He had lost considerable weight and presented the general appearance of a tuberculous patient. There was a marked stridor and the patient was compelled to

walk very slowly, in order to get sufficient air. On examination there was a marked flattening over the Pomum Adami, and a distinct depression could be felt over the left thyroid cartilage. He was absolutely aphonic. Examination with the laryngeal mirror revealed the interior of the larynx almost closed, with the exception of a small opening through which a small probe could be passed. A tracheotomy was done. Owing to the run down condition of the patient it was thought advisable to wait before doing a laryngofissure. The latter was done a few weeks later. In the interior of the larynx there was a mass of scar tissue. The vocal cords could not be distinguished; some of the scar tissue was removed and the skin was stitched to the mucous membrane.

A soft rubber tube was inserted into the larynx and the wound was packed with gauze; the dressing was changed daily, inserting a larger tube each time; by this means a gradual dilatation of the larynx was carried on. At the end of two months the external wound was closed. The largest size O'Dwyer intubation tube could be inserted into the larynx with ease. The patient was able to breathe normally and was able to make himself understood, although his voice was hoarse. His voice has been gradually improving with no evidence of a return of the stenosis.

Humboldt Building.

ROENTGEN RAY IN POST-OPERATIVE SARCOMA*

W. L. BROSIUS, M.D.

GALLATIN, MO.

So extravagant have been the claims of some who have done special work that this hearing we consider no mean compliment.

Our contribution of some facts is not to confirm a theory, but if possible, to interpret them so as to find the place, if any, the Roentgen ray should have in postoperative sarcoma.

We are sorry to ask you to consider this report without so an important part as the histology, which we are unable to obtain. We are glad, however, to have such clinical evidence as will compensate in large measure for the absence of microscopic findings.

CASE 1.—Austin S. was operated by Drs. Emerson and Jacobus of Winfield, Kansas, in April, 1889. Second operation April, 1903, at Topeka, Kansas, by Dr. McClintock who says: "This was malignant and I treated it with the x-ray with good results." During the early part of 1904 operation was refused by several surgeons. On May 27, 1904, patient presented large bony growth involving right malar, superior maxilla, nasal and orbital portion of frontal bones. Eye was overgrown, vision nil, nostrils completely occluded and great pain complained of. (Fig. 1.)

Pain ceased after third exposure to the ray. During June, July, August and September he had in all twenty-seven exposures. During this time we removed the right canine and lateral incisor, which were loose, along with carious portion from the maxilla and nasal. Through these openings we used a Snow's tube in the antrum. Along these tracts we gave as much high potential as the patient would bear. With this and as much Roentgen ray as the skin would allow these growths melted away. Vision returned with removal of pressure. Nostrils became permeable, when he presented appearance as shown in Fig. 2, which we regret our photographer "touched" to "smooth it up a little." You will notice, however, the depression of cheek and lip and elevation of nasal wing.

* Read in the General Session of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

This appeared to have been osteo-sarcoma. Under date of March 27, 1912, Mr. Sprague writes, "I remained well for four years after you treated me."

"Drs. John and White of Hays, Oklahoma, treated me with x-ray in 1910 and almost cured me. It grew worse in the fall of 1911 and has grown worse to date.



Figure 1



Figure 2

Two months ago I lost sight of that eye. Tumor is half as large as a hen's egg. They call it sarcoma."

CASE 2.—George L. was operated Nov. 15, 1908, by Dr. Jabez N. Jackson of Kansas City, who recognizing the condition, did a very thorough and complete piece of work.

By June, 1910, the growth had been renewed to such proportion that further operative interference was not deemed advisable by his surgeon.

On August 8, 1910, he appeared as in Fig. 3. The growth was extended now by continuity of tissue to the left side, head fixed, aphonic, deglutition very difficult, pain for some time past bearable only under morphin.

First exposure, Aug. 8, 1910, after which he had no pain. Went to work in stone quarry before the month was out and has been at work ever since. He now appears as in Fig. 4, which shows the character of surgery done and a small fibroma instead of a large lymphosarcoma.

TECHNIC

I would say use an old hard tube. Give five to ten milliamperè minutes, at 8 to 12 inches, or

making a condenser and not a transmitter of your patient.

Since treating these cases I find Dr. Pfahler¹ has given his technic, which so fully agrees with my own, and is so comprehensive that I most heartily recommend it. And I am just now favored with a reprint, "X-Ray as a Curative Agent in Malignant Tumors," by Dr. Aspinwall Judd of New York, with equally good suggestions.

Whatever you may think of this presentation, I would have you bear in mind that so potent and subtle a force as the complex emanations from a Crookes tube, should not be placed in the hands of the office girl, nor the intern, nor left to your roentgenographer, unless he be well grounded, not



Figure 3



Figure 4

rather one-half milliamperè for ten to fifteen minutes, every second or third day until you learn your subject. Some will bear much larger doses than others. Increase of milliamperage, or time, or decrease of distance will increase effect. Lodge as many rich rays in the growth from different angles as the skin will allow, and the absorbents take care of the products, aiming for maximum effect at points of vascular supply, remembering that you can cause a toxemia which will kill your patient. Hold up when toxic symptoms arise, give patient a rest and look after emunctories. Don't hurry. Remember that you can do great and and irreparable harm with the rays. If your skin will not bear the ray, protect it, or use the high frequency or a few sparks,

only in electrophysics, but also in electrotherapeutics.

As well put your instruments of execution in such hands and expect results. We know men who do very excellent diagnostic work, men who light the way for some of our most brilliant results, who will tell you that they know very little of the therapeutic effect of the force with which they are able to give you such satisfactory details.

We know other men who are securing splendid therapeutic results who seldom make a picture, and when they do it is a poor one.

The former fellow workman who carries the torch to light your way to success, you very natu-

1. Hare's Modern Treatment, 1910, I, 347.

rally admire and cherish. But let me beg of you not to despise the day of small things. There are possibilities in the fellow who with little light, and less encouragement is delving in the slough of surgical despond—postoperative malignancy.

GASTRIC HEMORRHAGE OCCURRING AFTER ABDOMINAL OPERATION*

MAX W. MYER, M.D.

ST. LOUIS

Just at this time when there is a very strong tendency to class gastric and duodenal ulcers as secondary to some primary infection in the abdominal cavity, it seems wise to study critically all conditions which seem to have any bearing on this subject. The cases of post-operative gastric hemorrhage follow so closely along the same lines, that a study and comparison of the two conditions seem justifiable. This paper is not presented, therefore, with the object of offering some new and unusual pathological lesions. Hutchinson has only recently been able to collect twenty-four fatal cases of post-operative gastric hemorrhage from the London Hospital. The case which I desire to describe serves as a typical example of the very intimate relation of these conditions.

Mr. T., aged 51. Family history negative. He has had scarlet fever, typhoid, meningitis, and eighteen years ago a right-sided localized peritonitis.

His present trouble, when seen in November, 1910, consisted of a dull pain in the epigastric region to the left of the median line. This had existed more or less for fifteen years. Pains were at times excruciating, causing him to walk the floor, and they sometimes radiated into the chest and shoulder. They were always more to the left of the median line than to the right. He had pain about three hours after eating, never immediately. Often nauseated and had vomited only on several occasions. No blood in the vomitus. He was afraid to eat when the pain was very severe, although eating seemed to relieve, temporarily, both pain and nausea.

The physical examination failed to reveal anything of a positive nature. Repeated examinations of the right iliac fossa, stomach and gall-bladder regions were negative. Frequent stomach analyses showed only a slight superacidity. Fees were always negative to blood reaction.

In view of the long-standing symptoms, character of pain, etc., a diagnosis of duodenal ulcer was made; the patient was, however, advised of the possibility of an appendix involvement. He took an ulcer cure in January, 1911, extending over six weeks. The patient felt much better and was relieved of all previous symptoms until in October, while away from the city, he had a severe attack of pain in right side with more or less diffuse pain over the abdomen. When seen about two weeks after the attack, there was a frank area of tenderness in the appendix region, but none in the epigastrium. Diagnosis of appendicitis and duodenal ulcer was now made and operation advised.

Operation.—November, 1911, a 4-inch median epigastric incision was made, and a markedly thickened and inflamed appendix, containing pus, was removed through this same incision. The gall-bladder was thickened and contained stones. Adhesions of gall-bladder to duodenum. Cholecystotomy and drainage. A careful examination of the stomach and duodenum failed to reveal a lesion. The patient was making a perfectly

normal convalescence, when, on the third day, without any premonitory symptoms, starting at noon and continuing until 10 p. m., he vomited large quantities of fresh blood, estimated at a liter. The usual methods were employed to control the hemorrhage, as absolute starvation, ice-cap, ergot, morphin, etc. The patient reacted nicely after the hemorrhage was controlled. There was at no time a trace of blood to be found in the stools.

The etiology of such hemorrhages has not been solved. Experimental tests of Turek have proved definitely that in dogs typical gastric ulcers can be produced by a feeding for several months of certain strains of bouillon cultures of *Bacillus coli*. He thinks the change of blood-serum and cellular changes indicate a general process characterized by diminution of normal protective bodies. Clinically we have every evidence of the local destruction of the mucous membrane of the stomach and intestines in severe acute toxemia of typhoid fever, erysipelas, acute febrile conditions and extensive burns. A similar process seems to take place in the slow but persistent chronic infection, as an appendicitis. Wilkie thinks that a retrograde venous embolism from the original septic focus causes development of acute ulceration. Whatever the etiology, one thing seems clear, namely that a septic process distant from the stomach, but usually intra-abdominal, may produce changes in the mucous membrane from which severe hemorrhage may occur. Bolton, in an interesting study, has clearly pointed out the difficulty even at autopsy of recognizing the points in the mucous membrane from which the hemorrhage occurred. His studies have thoroughly convinced him, however, of the persistent presence of actual lesions. Another point brought out by Bolton is the fact that erosions and acute ulcers are different degrees of a similar process. Whether the hemorrhage occurs as an acute erosion or ulcer preceding or following operation or even that mild hematemesis of a suspected ulcer, the etiology seems to be the same. Hutchinson showed 80 per cent. septic infections in his series of both operated and non-operated cases.

The hemorrhage following operation occurs any time between the second and tenth days, the later hemorrhage seeming to come in those cases in which the septic focus is not removed at the time of operation. In the reported case, the hemorrhage appeared on the third day after operation, at a time when we were in a position to definitely exclude a chronic ulcer of the stomach or duodenum. We might have had just such a hemorrhage before operation, for the cause is, I believe, the same in both; the operation being a mere coincident, with possibly the added factor in some cases of manipulation. Had this hemorrhage occurred before operation, with the clinical symptoms present, we would have felt that our diagnosis of chronic ulcer was surely confirmed.

Moynihan has only recently reported that in more than "half of his cases in which an operation was deemed expedient by reason of a wearisome persistence of pain, vomiting and occasional

* Read in the Surgical Section of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting held at Sedalia, May 21-23, 1912.

hematemesis, their stubbornness in open rebellion against the most assiduous and approved treatment, the stomach showed no evidence of textural changes. Lesions quite different from that expected could be found—namely, adherent or obstructed appendix, tuberculous ulcerations of ileum and cecum, calculus cholecystitis, a prolapsed and perhaps obstructed stomach.”

Another point of interest would be the study of the different factors determining why in the one case a chronic ulcer develops, while in another with apparently the same etiological factors, if we accept the chronic infection as a factor, clinical symptoms of ulcer are present, but the actual demonstrable lesion is missing. The findings of Moynihan, who has been able to demonstrate a frank appendix involvement in 80 per cent. of his duodenal ulcer cases, and the Mayos' observation of the frequency of a later acute appendicitis in those early cases in whom they had done a gastro-enterostomy without demonstrable gastric or duodenal lesions, point to more than a mere reflex relation between the appendix and the epigastric symptom-complex.

In the reported case a persistent chronic infection from an appendicitis of eighteen years standing produced some gastric changes, whether it be changes in the gastric secretion or some actual change in the mucous membrane, as erosion. An acute exacerbation of the chronic infection made his symptoms more acute and produced a sufficient change in the mucous membrane to produce hemorrhage, incidentally after operation. It must be admitted, I think, that possibly a mucous erosion was present at the time of operation, so why not similar lesions, or at least sufficient change in the gastric secretion to produce such lesions during the past years of gastric distress. These may occur with acute exacerbations of the infection, developing rapidly and disappearing rapidly or at least subsiding temporarily. I do not mean to make the impression that an erosion or acute mucous ulcer becomes chronic, for there seems to be an entirely different process—with possibly the same etiology. The erosions and acute ulcers and secretory changes seem to clear up rapidly after the removal of the primary focus, and Lane has applied the same principle in some chronic duodenal ulcers in the removal of a frankly involved appendix or ileus kink, spurring the necessity of a gastro-enterostomy.

The postoperative hemorrhages are more serious than other acute gastric hemorrhages only in so far as we have the added factor of shock from the operation. The treatment is precisely the same as that employed in the intestinal hemorrhage occurring at other times. Operation to control the hemorrhage is contra-indicated as in all acute gastric hemorrhages. Hutchinson operated his case, found one bleeding point, but the hemorrhage continued and the patient died. The erosions are as a rule multiple, and to search for all of them at operation is practically futile.

TWO PHASES OF CHRONIC APPENDICITIS*

J. C. LYTER, M.D.

MOBERLY, MO.

In appendicitis, both acute and chronic, we recognize that we are dealing with an infectious process. The infecting bacteria in the majority of instances are the members of the colon group. Since almost all cases of acute appendicitis, which are not treated surgically, sooner or later become chronic, either persistent or intermittent, we will deal only with the chronic cases in this paper.

There are several factors which determine the chronicity of appendicitis:

1. The number of infecting bacteria present.
2. The degree of virulence of the bacteria.
3. The ability of the tissue cells to obtain for themselves at least a partial immunity so that they can keep the infecting bacteria under control.

As the diagnosis of chronic appendicitis has been so thoroughly treated in the literature within the past few years that any one who is reasonably careful will rarely be much confused, and as the treatment essentially falls to the field of surgery, I wish to discuss only two phases of the malady:

1. The ultimate effects of chronic appendicitis on certain other organs of the body.
2. Its effect on the general economy of those so afflicted.

To thoroughly appreciate these by-effects of appendicitis we must have an accurate knowledge of the blood and lymph supply of the appendix, cecum and the first portion of the ascending colon. These organs obtain their blood-supply from the superior mesenteric artery through its terminal branches the appendicular, anterior ileocecal, posterior ileocecal and the colic. From this region veins corresponding with the above-named arteries unite to give origin to the superior mesenteric vein, which is a tributary of the portal. Consequently all blood from these tissues eventually reach the liver.

The lymphatic glands, the appendicular and ileocecal, drain the lymph channels of the tissues and empty themselves into the preaortic glands and eventually through the thoracic duct into the general venous circulation.

Anyone who follows the various forms of chronic appendicitis to operation will bear witness that not only is the appendix diseased, but the cecum and the first portion of the ascending colon as well are the seat of chronic irritation probably from the same organism that causes the appendicitis as an extended process. Thus finally we are dealing with an appendicitis, typhlitis and an ascending colitis.

We all know that wherever bacteria live within human tissues they give off certain excretory products which we call toxins; or else these excretory products unite with certain substances within the tissues (probably the albumins forming toxalbumins) which in themselves are cap-

* Read at the Annual Meeting, Linton District Medical Society, Mexico, Mo., May 7, 1912.

able of producing many symptoms of intoxication. We also know that wherever there is a chronic intestinal irritation we have impaired digestion resulting in putrefaction and fermentation of the ingested food, followed by the absorption of the poisonous products, or toxins, resulting from this putrefaction and fermentation. It is within the cecum and ascending colon that this absorption takes place most rapidly resulting in the condition designated auto-intoxication. Finally we have two sets of toxins developing here:

1. The toxins resulting from the putrefaction and fermentation of undigested food.

2. Toxins due to the presence of the infecting organism and the organism itself.

How, then, do these existing toxins come in contact with and effect the general economy? Some classes of them, just which classes we are unable to say, are absorbed by the lymph glands spoken of and passed on into the general circulation and eventually come into direct contact with every tissue of the body. This is the condition of general intoxication, slight or severe it may be, but nevertheless present and manifested by certain clinical symptoms familiar to us all as general malaise, loss of appetite, loss of energy, neuralgias, vertigo, loss of weight, neurasthenia and the condition described by the patient as generally run down. Is there any wonder then that the chronic appendicitis cases who receive proper surgical treatment, and subsequently careful medical supervision, feel so well and gain so much weight when they have been relieved of a chronic intoxication. Other toxins as well as the infecting bacteria themselves, from the tissues spoken of, are taken up by the portal circulation and carried to the liver where they are dealt with and finally, at least a great portion of them, secreted into the bile passages where they come into direct contact with the mucous membrane of the bile-ducts, gall-bladder and the duodenum.

Some most excellent work, which goes far in explaining the effects of these toxins and bacteria on the liver, gall-bladder and duodenum, has been done by Adami, who discusses at length the condition of chronic intestinal irritation where there is a great increase in the passage of leukocytes into the submucosa and thence between the epithelial cells into the lumen of the bowel, and as a consequence there is an increased proliferation of intestinal bacteria and leukocytes and a great increase in the taking of the intestinal bacteria into the portal circulation, and he finds evidence of them in the mesenteric glands and the liver cells, as an abundance of minute granules, which he considers, after careful examination with an eighteenth oil immersion lens, to be the final stage of bacterial destruction.

After much logical discussion he concludes that the taking in of intestinal bacteria in connection with chronic intestinal irritation plays no small rôle in the etiology of a large portion of all cases of hepatic cirrhosis, chronic gall-bladder and

duodenal disease, and from the known hemolytic powers of the colon bacillus, in the production of pernicious anemia.

Nicholls,¹ working with Adami, produced these granules in the liver of guinea-pigs by injecting cultures of the colon bacillus into their peritoneal cavities. He also found these diplococcoid granules in the renal cells and from this he goes still further than Adami and considers that the taking in of intestinal bacteria, in case of chronic intestinal irritation, by the portal circulation is a factor in many cases of chronic liver and gall-bladder trouble and also a factor in chronic interstitial nephritis. While these probabilities have not as yet met with the entire general acceptance they are, nevertheless, founded on sound reasoning and animal experimentation.

Applying the results of Adami and Nicholls to our own subject we would find that as chronic appendicitis always has associated with it typhilitis and colitis, we would have not only the absorption by the portal circulation of the bacterial toxins and the toxins of food putrefaction and fermentation, but also a great taking in by the portal circulation of the infecting bacteria, and all these being carried to the liver are excreted as such into the bile passages where they may act as irritants to the mucous membrane of the bile-ducts, gall-bladder and duodenum.

The natural results of these irritants and bacteria on these tissues would be an infection and hypersecretion of the gall-bladder, or, if you so choose, a chronic cholecystitis. McCarty,² after studying carefully 365 cases of cholecystitis operated on at St. Mary's Hospital, concludes that the different inflammatory lesions of the gall-bladder, with or without the formation of stones, are not definite clinical entities but different degrees of the same process of reaction to irritation. While Verbryke³ considers that many cases of chronic cholecystitis are the result of excessive intestinal putrefaction and fermentation existing as a consequence of chronic intestinal irritation.

In the light of such researches by careful observers it seems but reasonable that chronic appendicitis having associated with it chronic intestinal irritation can play an important rôle in the etiology of certain cases of chronic cholecystitis followed possibly by the formation of gall-stones, with their known complications and infections. Further still, these same irritants passing on to the duodenum may be responsible for a chronic duodenitis and this in turn produce the chronic indigestion, so frequent a symptom of chronic appendicitis.

We have appreciated for years that gall-stones frequently follow typhoid fever from the taking in of the typhoid bacilli by the portal circulation and causing a chronic cholecystitis. Also that hepatic abscess frequently follows amebic dysentery. Why then, in view of the fact that the

1. Montreal Med. Jour., 28, 1899, 161.

2. Jour. Am. Med. Assn., liv, 2004.

3. Am. Jour. Med. Sc., cxliii.

Mayos have shown that about 35 per cent. of all cases operated by them for gall-stones had an associated chronic appendicitis, should we not consider that the toxins of chronic appendicitis entering the portal circulation produce 35 per cent. of all cases of gall-stones.

It has been known for decades that frequently extensive skin burns are followed by duodenal ulceration because the liver excretes the toxins of the tissue destruction into the bile ducts and on into the duodenum favoring the development of the ulcer. Since general statistics go to show that about 20 per cent. of all cases of duodenal ulcers have associated with them a chronic appendicitis we might ask if the chronic appendicitis might favor the development of such ulceration by the process spoken of above.

Within the past few years the writer has noticed at least a dozen cases of chronic appendicitis with well-marked intestinal putrefaction and fermentation continue until well-defined symptoms of gall-bladder disease made its appearance. The gall-bladder disease appearing only after the appendicitis had existed for some time. He also had the pleasure of seeing at least three of these gall-bladder cases verified at operations.

From the foregoing I think that we can say that many cases of chronic appendicitis produce in the patient a general intoxication with loss of weight, loss of appetite, loss of energy, vertigo, malaise and neurasthenia as its symptoms; and that chronic appendicitis, having associated with it chronic intestinal irritation, plays no small part in the etiology of chronic gall-bladder and duodenal diseases. Taking this aspect of the disease, renders early surgical intervention absolutely imperative. The simple removal of the appendix, however, does not always mean a cure, and I am satisfied that many of our incomplete cures are due to faulty after treatment. All cases of chronic appendicitis should receive the most painstaking observation after operation. Especially should the habits and the diet be guarded until the associated intestinal irritation has been removed, and if chronic gall-bladder disease makes its appearance it should receive select medical supervision at once.

AUTO-INTOXICATION: ITS MEDICAL ASPECT *

JOHN M. BELL, M.D.

ST. JOSEPH, MO.

I offer no apology for bringing before this section the consideration of this subject. It has been before the profession a number of years, but has not been properly thrashed out, nor is it yet fully appreciated.

The frequency with which I meet it in a gastro-enterologic practice compels me to believe its detection and proper treatment is a much-neglected field. When I declare it to be a concomitant

of almost all cases of imperfect digestion and practically all cases of constipation, I am not exaggerating, but merely accentuating its wide prevalence. Physicians who dismiss their cases of constipation with a laxative, or those of imperfect digestion with even the best devised prescription, are doing the patient an injustice and the profession a wrong.

Auto-intoxication is an inevitable result of imperfect digestion and constipation, or to be more precise, an end-product of impaired motility of the digestive canal. The ileum is given as the essential laboratory of these decomposition products, because at post-mortem they are found mainly in this part of the intestine; as a matter of fact, the small intestine at large is the laboratory. If food is properly selected and rationally eaten, with due mastication, by the time it reaches the ileum it will have been digested. If not, by the time it reaches this point a large part of it has undergone decomposition. In this part of the small intestine absorption is active and at the cecum the bulk of the fluid disappears. With a normal colon the contents pass along with sufficient rapidity, so that no more fecal absorption takes place than can be neutralized by the natural defenses of the body; with colon peristalsis deficient there is an abnormal sojourn of fecal contents and a corresponding increase of absorption.

The causative factors of self-infection are many. They cannot be summed up in a word, unless perhaps we allow the term impaired motility. Any factor which disturbs the normal onward progress of foodstuffs contributes to this disturbance. Among these may be noted gastric dilatation, partial pyloric stenosis, kinks or displacements of abdominal viscera, enteroptosis, adhesions, dilated colon. Unhygienic habits may be the causative factors, such as an excessive animal food, lack of exercise, sedentary life. Very often the result of self-infection is mistaken for the cause of it. In a well-marked, typical case there is furred tongue, bad breath, a feeling of malaise interpreted as malaria; urine and feces malodorous, itching skin, perhaps with pimples; mental depression and physical relaxation.

Imagine now the futility of quinin or a digestive tonic or a laxative in such cases, when part or perhaps the whole of the digestive tract is a series of pockets for food decomposition and when the normal defenses of the body are to a large degree incapacitated for work.

The normal barriers of the body to self-infection, as outlined by Combe of Switzerland, are threefold: first, the intestinal mucosa, which protects the organism by its secretions and by the action of its cells; second, the liver, where amino-acids and ammonia are transformed into the urea; third, the antitoxic glands, the thyroid, pituitary body and suprarenal capsules. Under normal conditions of life these barriers are sufficient to protect the body amply against infection.

* Read in the Medical Section, Fifty-Fifth Annual Meeting, Missouri State Medical Association, Sedalia, May 21-23, 1912.

but where the quantity becomes abnormal, one after another gives way, infectious matter passes beyond into the blood-current and circulates as such; hence debility, muddy skin, inactive perspiratory glands and a condition of chronic infection. The close connection between goiter and auto-intoxication has been already worked out; likewise Addison's disease, joint infections, endocarditis, gall-bladder infection and many cases of general heretofore undetermined invalidism. In these cases of impaired motility of the digestive tube, gaseous matter long retained is absorbed by the portal circulation and eliminated by the lungs, as is carbon dioxid and other normal exhalations; hence the bad breath. The mucosa of the digestive tract, including the tongue, must be regarded as an excretory organ. This is evidenced in the coated tongue, again in the apparently unprovoked diarrheas occurring in rheumatic and gouty diseases. This condition (auto-intoxication) in reducing normal resistance of tissues is a predisposing factor in gastric and duodenal ulcer, created as a result of elimination of infectious matter through these mucous surfaces. I have observed the healing of such ulcers take place frequently during a course of overhauling for infection.

The far-reaching effect of this condition is not realized by the profession. It is one of the unpleasant sequelæ of our modern civilization. It is frequently mistaken for malaria, and when accompanied with other distinct disease entities renders a diagnosis more difficult. I have seen painful joint infections of long standing disappear during a course of treatment for this condition; also persistent headaches and dizziness, as well as indefinite abdominal pains no doubt caused by retention or sagging. One of the most distressing evidences of self-infection is the persistent unrest of the nervous system. Individuals of robust nervous mechanism may absorb distinct quantities of infectious matter, as evidenced by indican reaction of the urine, without much general disturbances. Those with unstable nerves suffer quickly and profoundly with auto-infection. I have had cases of neurasthenia, associated with gastric or intestinal disturbances recover their balance completely, after elimination of effete products and the establishment of free elimination. To maintain such result, however, the causative factors must be disposed of. Good habits of life must displace unhygienic ones; diet must be adapted to the individual; normal motility of the digestive tube must be maintained and usually "there's the rub."

In regard to the diagnosis of auto-intoxication, I would like to say parenthetically it is best detected and the involvement and degree determined by physical examination of the thoroughly exposed abdomen.

First, in the upright position by palpation and inspection; then in the recumbent position, when aided by colon irrigation, ptosis may be detected

of any part of the intestinal canal by percussion and palpation. The ideal scheme is the employment of Roentgen ray, using bismuth enema, as outlined by Pennington of Chicago. Unless the case be very complicated, however, an accurate diagnosis may be made by the other means suggested. Note the stooping shoulders, narrow angle at the ensiform cartilage, flabby abdominal wall and general relaxation of the enteroptotic; or, on the other hand, the large, pouchy abdomen, plethora and portal engorgement of the excessive feeder.

The many phases and varying degrees of anatomic defect encountered in these cases render a classic outline of treatment impossible. While in some cases the only avenue of restoration is through surgical interference, the majority of cases respond to medical and mechanical treatment.

On the whole, however, surgery for enteroptosis itself has not a good record of recoveries. These are rather cases for the abdominal support, outdoor life, gymnasium, abdominal massage and cold bath.

A large number of cases of self-infection occur among those in sedentary life, with acquired constipation and bad hygienic habits.

If these factors are solely responsible for the condition they must be corrected. Animal food must be eschewed for ten days or two weeks, mastication must be thorough, active exercise must be followed, a 2- or 3-mile walk every day, or tennis or golf. Portal congestion may be subdued by massage and a judicious use of salines. I have had cases of auto-intoxication wholly the result of excessive animal diet. If the impairment of motility be slight, either within the stomach or colon, massage, colon flushing and exercise will correct it. In these cases I insist on garden work or the saw-buck, whether it be man or woman, and I get results.

The most frequent site of pouching or stasis I find to be the ascending colon and the sigmoid. Even these deformities, if not too pronounced, can be remedied by means of abdominal exercise, a supporter and coarse vegetable diet. It is only in the most marked cases of kinking or dilatation do I resort to surgical interference. A fair number of the cases come under the classification of general splanchnoptosis, as outlined by Hemmeter of Baltimore. Here there is congenital defect of bony structures, with vasomotor and cardiovascular asthenia; a general physical debility quite beyond restoration. Ptoses are marked, digestion and elimination only follow the general imperfect functioning of all the vital processes. These people bear surgery badly, and no outline of medical or mechanical procedure can restore functions. They must live a life essentially hygienic; largely in the open, and even then are unable to bear the wear and strain of active life, such as is required by the present-day civilization.

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EDITORIALS

TEXAS COUNTY MEDICAL SOCIETY ORGANIZED

The anticipated birth of the Texas County Medical Society as a component society of the state medical association was accomplished without complication or delay on August 8 at Houston, the county seat of Texas County. With the affiliation of this new society the membership of the state association is increased by fifteen wide-awake, earnest, energetic, progressive physicians; several others in the county who were unable to be present at the organization meeting will join later and we look forward to having this county number all the reputable and eligible physicians in its membership in a short time.

Texas County physicians have maintained a county society of their own for over a year, holding meetings with regularity and endeavoring to advance the status of the profession in their community, and they have accomplished a great deal of good in this direction. Now that they have become affiliated with the state organization their opportunities for obtaining improvements in the conditions surrounding the practice of medicine will be greatly increased.

Texas County physicians have had many obstacles to overcome in their progress toward elevating the standards of practice, for the county seems to be pretty well burdened with illegal and incompetent persons claiming the right to practice, and in some instances possessing legal evidence of having gone through certain necessary formalities to give color of respectability and legal procedure to their licensure.

The organization meeting was held in Houston and fifteen physicians were present. The councilor of the district, Dr. J. H. Elliott, of West Plains, and the secretary of the association were on hand to direct the proceedings toward organization. The most intense interest was manifested by the county physicians in listening to the description by Dr. Elliott and Dr. Goodwin, of the purposes and objects of medical organization and of the reforms and advances that have followed, not only in the profession itself but in the manufacture and sale of drugs and chemicals, in the suppression of vicious nostrums advertised to the laity, in the correction of quackery and char-

latanism and in the education of the people concerning the attitude of reputable physicians toward each other, their patients and the community.

Among the problems which these new members have been endeavoring to solve, unaided by the state organization, are the self-same riddles that have perplexed reputable physicians in other counties previous to the day of medical organization—the eradication of the medical quack, imposter and fraud. The evil influence of such parasites is so apparent to the physician who is by instinct, training and education devoted to the welfare of his patients and the community which he serves, that he is apt to grow impatient with the people for the blind and stupid trust placed in the bombastic jibberings of these “near-doctors.”

Dr. Leslie Randall, Dr. E. P. Blankenship, Dr. L. H. Waller and others took part in the discussion of the conditions in the county and of the future work of the society. The prospects for a progressive and active organization in Texas County are very bright and encouraging. The physicians are to be specially commended for their earnestness and determination to keep in line with the advancements of medical science, as the county is in the hill district of the Ozarks and methods of rapid transportation are not convenient or numerous. It is a twenty-mile drive from the railroad station to Houston, the county seat, where meetings are held and several of the doctors had driven that distance from other points.

It gives us much pleasure to present to the members of the association the fifteen charter members of the Texas County Medical Society: E. P. Blankenship, Houston; Thos. Brooks, Cabool; Wm. A. Covert, Houston; L. M. Edens, Cabool; P. A. Herrington, Houston; R. B. Lynch, Plato; O. C. McBride, Osear; S. L. Mitchell, Licking; J. W. Patton, Cabool; J. W. Phemister, Houston; Leslie Randall, Licking; Jno. T. Robertson, Cabool; Robt. B. Tilley, Plato; L. H. Wallen, Summerville; Jas. R. Womaek, Houston.

The officers of the society are: President, Leslie Randall, Licking; secretary-treasurer, L. M. Edens, Cabool. Meetings will be held quarterly.

HYGIENIC AND SANITARY EXHIBIT AT MISSOURI STATE FAIR

One of the features of the 1912 Session of the Missouri State Fair which is held annually at Sedalia, will be an innovation in the way of a hygienic and sanitary exhibit. The plan was suggested by our secretary during our annual session at Sedalia last May, and has been enthusiastically taken up by the Fair Board and our committees. The Committee on Public Policy and Legislation has charge of the arrangements and preparations are now under way to provide an exhibit which promises to be one of the most important features

of the meet. The fair meets September 28 to October 4.

An exhibit of this kind has for its object the dissemination of hygienic and sanitary knowledge among the people; its purposes are in direct accord with the educational purposes of the Fair itself. The Missouri State Medical Association will arrange for physicians to give lectures on such subjects as vaccination and smallpox, typhoid fever and water supply, cancer, tuberculosis, trachoma, bubonic plague and venereal diseases.

The state health agencies which will aid in making the exhibition interesting and instructive are the Missouri State Medical Association, the State Board of Health, the College of Agriculture, the State Veterinarian, the State Veterinary Association, the State Pure Food and Drug Commission, the State Anti-Tuberculosis Society, and the St. Louis Board of Health.

Until the state sees fit to provide funds for the maintenance of the exhibit the expense will be borne by those who contribute to its success, but it is hoped that the economic value of the undertaking, as a means of familiarizing the people with hygiene and sanitary first-principles, will be so apparent, and the beneficial influence of the exhibit so manifest, that the legislature will ere long be led to a sufficient appreciation of the salience of the undertaking to appropriate funds to make the hygienic exhibit a permanent part of the Fair.

It is of supreme importance that an institution as pretentious as the State Fair should have an exhibition of this nature, because of the ignorance which prevails among the people concerning the fundamental principles of hygiene and prophylaxis, and also because the gatherings at an affair of this kind are unusually representative of the people of the commonwealth.

It is obvious enough, to those who have given the matter any thought, that the relation between the agriculturalist and the rest of the people is vitally intimate; in no particular is this interest closer or more clearly defined than in the matter of disease propagation and prevention.

The health of the social body depends in a very large way upon the precautions taken to protect food supplies from contamination, and the farmer is the man whose opportunity in this direction is first hand, and of the greatest possible importance. Further, it is his duty to regard the factors which operate in the spread and restriction of disease and to provide against these contingencies; but it is first incumbent upon those who have made the subject the object of special study to acquaint him with the facts in the case, and to make known to him certain requisite procedures.

Similar exhibits at county fairs would be attractive features. This is a means of popular education that might well be developed by the

county medical societies with the cooperation of county boards of health, county school superintendents and other county officers whose duties bring them into more or less close touch with questions of municipal sanitation. It is time for the state and counties to look this great problem squarely in the face and begin showing some signs of comprehending their responsibilities in the movement to improve housing and living conditions of the human family: the benefits of the state and county fairs should not be limited to improving stock and produce. Strong and healthy children ought to be of as much importance to the community as are fat hogs, blooded bulls and race horses.

CHANGE IN NAME OF THE PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE

On August 14 President Taft approved an act passed by Congress to change the name of the Public Health and Marine-Hospital Service to the Public Health Service; at the same time certain functions and duties of the Service were extended and broadened, and the salaries of officers were increased. This bill in various shapes has been before Congress for several years and has run the gamut of this and that committee, finally emerging in fairly satisfactory shape. The late Surgeon-General Wyman made a death-bed appeal for its passage. It will give the Public Health Service somewhat larger opportunities to show the people what a real department of health could accomplish in health protection and disease prevention. The act reads:

"An Act to change the name of the Public Health and Marine-Hospital Service to the Public Health Service, to increase the pay of officers of said service, and for other purposes.

"That the Public Health and Marine-Hospital Service of the United States shall hereafter be known and designated as the Public Health Service, and all laws pertaining to the Public Health and Marine-Hospital Service of the United States shall hereafter apply to the Public Health Service, and all regulations now in force, made in accordance with law for the Public Health and Marine-Hospital Service of the United States shall apply to and remain in force as regulations of and for the Public Health Service until changed or rescinded. The Public Health Service may study and investigate the diseases of man and conditions influencing the propagation and spread thereof, including sanitation and sewage and the pollution either directly or indirectly of the navigable streams and lakes of the United States, and it may from time to time issue information in the form of publications for the use of the public.

SEC. 2. That beginning with the first day of October next after the passage of this act the salaries of the commissioned medical officers of the Public Health Service shall be at the following rates per annum; Surgeon General, six thousand dollars; Assistant Surgeon General, four thousand dollars; senior surgeon, of which there shall be ten in number, on active duty, three thousand five hundred dollars; surgeon, three

thousand dollars; passed assistant surgeon, two thousand four hundred dollars; assistant surgeon, two thousand dollars; and the said officers, excepting the Surgeon General, shall receive an additional compensation of ten per centum of the annual salary as above set forth for each five years' service, but not to exceed in all forty per centum; *Provided*, That the total salary, including the longevity increase, shall not exceed the following rates: Assistant Surgeon General, five thousand dollars; senior surgeon, four thousand five hundred dollars; surgeon, four thousand dollars: *Provided further*, That there may be employed in the Public Health Service such help as may be provided for from time to time by Congress.

DIAGNOSING THE DOCTOR

We take pleasure in reproducing the following from the editorial columns of the *St. Louis Republic*. Its jovial style will not be misunderstood, and lends warmth and geniality to the spirit of the utterance:

"Senator Works of California has taken pointed exception to the remarks of Senator Owen of Oklahoma against the American League for Medical Freedom, while Senator Owen, in turn, resents the California Senator's characterization of the American Medical Association as a "Doctors' Trust." The disturbance among the doctors has almost reached a point where it threatens to ruffle the placidity of the United States Senate.

It appears that all the doctors who are really not doctors are combining against the doctors who really are doctors, and some very candid opinions are expressed on both sides of the controversy. A minor incident may be said to illustrate the *entente cordiale* existing between the opposing camps. When a doctor of the ancient régime was asked to meet an empirical nondescript he said: "I will shake hands with the gentleman, but I cannot admit that he is a doctor. Whereupon the other replied: "I will shake hands with the doctor, but I cannot admit that he is a gentleman."

Collier's Weekly, a great medical authority, says that the new coalition expended about \$25,000 to defeat the legislative plans of scientific medicine at the last session of Congress. The antivaccinationists, the faith-curers, the bone-doctors, the rubbing-doctors and all are hot on the trail. And they are strong enough at the present time to defeat any legislation which the so-called "Doctors' Trust" may wish to see enacted.

The American people, however, are far from turning their backs on the old family doctor. They have diagnosed his case and they are for him. There is a pretty well-defined opinion that medical attention is usually worth all it costs. No other professional or laboring man will come at your beck and call as the doctor does. The plumber says that he will be there next week, the paper-hanger will come when he gets ready, and your lawyer asks you to come to his office or wait until to-morrow. But the doctor comes every time, and when he does come he is just as likely to bring the stork with him as anything else. What though his pellets be but bread and cheese, his powders naught but ineffective dust, they are worth the money. If you doubt it, go and hire a lawyer, or a cook, or an undertaker, and compare the returns on the investment.

The history of medicine is a history of sacrifice for the good of man. The physician encounters more hopeless misery and unutterable woe than all the other trades and professions combined. You will find him everywhere; now among his star patients, who really pay him what they owe; now doing a thankless job of surgery in some public hospital, or bending over the form of some lone woman dying in a garret; but

through the gloom and sorrow, in the path of pain and the way of death, his urbanity is never lost and his patience, like the celestial virtue, endureth forever. He may not be a saint. Oftener than otherwise he professes no creed; but when he enters the sickroom one may almost hear the sad, sweet words, grown mellow in the echoes of two thousand years: "In the world ye shall have tribulation; but be of good cheer; I have overcome the world."—*St. Louis Republic*.

DR. ALLEE RENOMINATED FOR THE STATE SENATE

Dr. W. S. Allee of Olean has been renominatee on the Democratic ticket for state senator from the Twenty-Seventh district. This district comprises the counties of Miller, Maries, Pulaski, Laclede, Osage and Cole. Dr. Allee's splendid record in the last two sessions of the legislature won him the renomination. He enjoys the confidence and esteem of the people in this district and of the entire medical profession. Commenting on his candidacy for state senator the *Linn Democrat* says:

"Dr. W. S. Allee, of Olean, Miller County, is not only one of the best men in Missouri, but he was one of the ablest and most influential senators in the state senate in its sessions of 1909 and 1911. He was ever on the right side of every proposition."

The National League for Medical Freedom made a determined effort to defeat Dr. Allee, centering all their influence on the nomination of Don O. Vernon, a lawyer of Lebanon, who ran in opposition to Dr. Allee. Mr. Vernon was the representative from Laclede County in the Forty-Sixth General Assembly, where he distinguished himself chiefly through his bitter opposition to health laws. He fought the bill to enlarge the powers of the state board of health and introduced a bill (H. B. 816) to repeal the vital statistics law.

WHEN IS ADVERTISING NOT ADVERTISING?

The following from *Brooklyn Life*, a newspaper published in Brooklyn, shows what newspaper men usually think of a doctor whose name is constantly before the public in connection with professional work:

DID NOT ADVERTISE

"When the advertising man called on Dr. Smith to get business for the paper which he represented he was told, rather loftily, that it was against "professional ethics" to advertise. But when the cub reporter stopped at the doctor's office two hours later for news items, he received the following:

"Dr. H. Johnson is moving his office from 1 Bradley block to 146 Main street, where he will have an entire suite of rooms. This change was imperative on account of his rapidly increasing practice."

"Mrs. Alice Jones of North 10th street fell upon the pavement near her home this morning, sustaining

a broken wrist. Dr. H. J. Smith reduced the fracture.'

"Dr. H. Johnson Smith has returned from a professional visit to Snyderville."

"Wellesly West, the well-known manufacturer, who has been ill for several weeks, shows marked improvement today. His physician, Dr. H. Johnson Smith, believes he will soon be convalescent."

NEW AND NONOFFICIAL REMEDIES

The 1912 edition of New and Nonofficial Remedies issued by the American Medical Association is ready for distribution. The book contains descriptions of all proprietary medicines which have been found to comply with the rules of the Council on Pharmacy and Chemistry. The book is one which all our members should possess. The price is 25 cents paper, 50 cents cloth.

CORRESPONDENCE

TO ADVERTISE OR NOT TO ADVERTISE

COLE CAMP, Mo., July 18, 1912.

To the Editor:—Your editorial in the *JOURNAL* of the July issue, under the caption "Prostituting the Profession" is a timely one and the spirit of it is excellent. But there is a condition that confronts the better members of the medical profession to-day and not a theory. I rather think it was this that your professor had in mind when he deprecated the fact that it is unethical for physicians to advertise. Blatant, egotistic advertising is the province of the quack and should have no place in the "armamentarium" of the reputable and well-educated physician. The difficulties which a good, honest physician has to contend with come from within the pale of the so-called reputable profession. It is against these he has to fight and to which I refer above as the condition.

To be more explicit: This and other states is and are overrun—fully a half—by illiterate and more or less poorly equipped so-called physicians. These men are only a menace to the people and a decided drawback to the learned and more ambitious members of the profession. They are the cheapest product of the cheapest schools of Illinois, Missouri and Iowa. According to the Carnegie report the two latter states have had no good schools until very recently. I do not mean that all graduates of even poor schools are unqualified. There is the exceptional man who is all right but the average one is a poor stick. Now, in nearly every community, where there are several doctors, from a third to a half of them are really worthy of support. But what are the actual facts. In many instances you will find the poorest ability from every standpoint save that of nerve, the most appreciated. They

are men who sacrifice life and murder the King's English all in one breath. One of them told me he "hadn't saw his patient for a few days." The good, well-equipped, educated, honest doctor sits idle while he sees plagues like the above going to and fro. Still, they have been graduated by mercenary professors who in many instances are now reaping their compensation in diminished incomes and incongenial associations.

Now, to my mind, the remedy for all this is *publicity*. Call it advertising if you will. But people should be brought to a knowledge of differences in the standing of practitioners in their respective communities. They do not know, else they surely would prefer talent to menace. Nine-tenths of the sick would get well without a doctor and it is this fact that gives uneducated physicians and all the charlatan sects any standing whatever. But the one-tenth require all the skill of a well-trained mind. And since sick people do not know to which division they belong it behooves all to get the best the community affords at first hand. The most up-to-date physician can do little enough at times, but he should be preferred over the charlatan graduate in any case. Captain Smith took the Titanic to her death, but who would not have preferred his nautical training to that of a roustabout?

Under the circumstances I think the proper thing to do would be for the practitioner to let the people of his community know, in a modest way, through the local paper, of his qualifications for which he can show credentials. He might state, too, that it is not right for the physician to advertise, in the ordinary acceptance of that term, but that people must have some way of judging of the training of the physician in whom they desire to place confidence and that any other doctor has the same right to so present his credentials *if he has them*. No man should advertise what he can do but he should be allowed to present evidences of his worth to the people. If this were done it would serve as the greatest stimulus to higher education that the profession has ever experienced. The unambitious, the money getter, the grafter and the uneducated would have to take to the woods. Thus the field would be left to the legitimate uses of men who could get revenue enough to keep themselves and their offices well equipped. Physicians would be respected and not "Docked" to death by people who know no better. Of course such a procedure would cause some disturbance for a while among the incompetents and perhaps would not immediately do good until the real motive of the publicity given were appreciated; but I am convinced that the ultimate result would be all that could be desired. Like quacks, the success of the poor graduate depends on the *silence* of the educated physician. Let us break that silence. Why not?

Yours truly,

SUBSCRIBER.

NEWS NOTES

THE Committee on Ophthalmia Neonatorum has been changed to the Committee on Trachoma.

A MEMBER, five years in practice, is looking for a location in Missouri or Kansas. The secretary will send his name and address on request.

DR. R. S. MAGEE, formerly assistant physician of Fulton State Hospital, was acquitted of the charges of misconduct by the jury recently.

DR. C. H. CHRISTIAN, of New Bloomfield, is taking post-graduate work in New York City. He expects to return about September 1 and locate at Fulton.

DR. D. K. MORTON, of St. Joseph, who was recently stricken with paralysis while at Russellville, is improving. He is at present in a hospital in Kansas City.

A NEW sanitarium for the treatment of nervous and mental diseases has been opened at Mt. Vernon, by Drs. V. O. Williams and J. M. Yater, formerly of Nevada, Mo.

DRS. G. A. NASH, of Quitman, and F. M. Ryan of Maryville, have returned from a three weeks' sojourn in Chicago where they took special courses in post-graduate work.

THE City Sanitarium at St. Louis will be provided with a larger number of attendants in the near future. At present there are only twenty-seven night attendants. This number will be increased to fifty-seven.

THE executive committee and the president met at the headquarters of the Association in St. Louis on July 7, and the president submitted his appointments on committees for 1912-1913. For a complete report of the proceedings of the meetings and committee appointments, see page 99.

A RATE of one and one-third fare for the round trip has been granted for the annual meeting of the Medical Association of the Southwest at Hot Springs, Ark., October 8-10. To secure this rate those attending the meeting must ask the ticket agent for *annual tourist ticket* to Hot Springs and return.

THE Cass County Medical Society will celebrate the 10th anniversary of its organization in

November. The members are preparing for a fitting celebration and the occasion promises to be one of interest, profit and enjoyment. It is especially desired that all charter members of the society be present at that meeting.

DR. M. F. ROLENS of Dixon was severely injured on July 8, when his team became frightened and ran away, dragging the doctor about fifty feet. He suffered a dislocation of the femur and bruises. A week before this injury his son, Dr. Louie Rolens, suffered slight injuries from a similar accident with the same team.

THE American Hospital Association will hold its 14th annual meeting at Detroit on September 24-27. The preliminary program holds many papers that ought to be of great interest to hospital workers. Those interested in the meeting may obtain further information from Dr. J. N. E. Brown, Secretary, 90 Charles street, East Toronto, Canada.

DR. L. C. HOLLOWAY of St. Joseph, was arrested last month on the charge of practicing medicine without a license. About a year ago his license was revoked by the state board of health for a period of five years for alleged improper practices; he appealed to the circuit court and that tribunal reduced the sentence of the board so that the suspension ended October 30, 1912.

JOSEPH MARSH of St. Louis was convicted of practicing medicine without a license recently, but on his promise to cease his activities in this direction, Judge Falkenhainer paroled him. Marsh's specialty was tape worm. The patient upon whom he experimented is said to have declared that the medicine was supposed to kill the tape worm, but instead it nearly killed him.

DR. S. A. HAYCRAFT of Willow Springs was tried at a recent meeting of the State Board of Health on the charge of issuing whiskey prescriptions too promiscuously and for violating the laws in regard to reporting contagious diseases. He was found guilty, but the sentence was suspended, according to news dispatches, on account of his age. He is about 65 years old.

DR. ROBT. M. FUNKHOUSER, the president of the Association, will recommend at the next annual session that the name of the Committee on Public Policy and Legislation be changed to the Committee on Health and Public Instruction, in order that it may conform with the committee of the American Medical Association. The duties of

this committee are so intimately associated with public health work that the change seems advisable.

H. K. MULFORD COMPANY announce a revision downward of the prices on their bacterins, effective August 5. This is "tariff reform" in the right direction from the standpoint of the practicing physician, and characteristic of this firm in giving the profession the benefit of every improvement in the production of medicinal substances. A complete list of prices will be sent on request.

PLANS for a new hospital at Springfield are being completed by a number of physicians of that city most of them members of the County Medical Society. This will give Springfield four hospitals. It is proposed to erect a building costing \$25,000. The officers of the association are: Dr. W. P. Patterson, president; Dr. H. A. Lowe, vice-president; Dr. E. C. Roseberry, secretary; Dr. D. U. Sherman, treasurer.

BUTLER County Medical Society has completed arrangements with the school board at Poplar Bluff for the members of the society to deliver a series of lectures on "Sex and Sex Hygiene" to the pupils in the public schools. The school board received the suggestion of the society with much favor and entered into the plan with a most encouraging spirit of cooperative activity for the instruction of the pupils on this important subject.

JOHN J. WEITZMAN and Dr. S. D. Neveling of St. Louis, were fined heavily in the Circuit Court of that city last month after pleading guilty to the charge of obtaining money under false pretenses. These people, with some hired assistants, attempted to practice medicine on the wholesale plan, especially among the foreigners in St. Louis, and were running a fake concern, according to the investigation of the City Health Department. Upon their plea of guilty and promise not to engage in any similar schemes again the court assessed the fine.

FREE medical treatment seems to be quite the vogue. News dispatches from St. Joseph inform us that the policemen and firemen of that city will be given free medical attention by the city physician in all cases of accident and injury received while on duty. The free medical plan now includes besides the above the police force of St. Louis, and the students of the State University. We have not yet heard that the authorities raised the salaries of the police surgeons to a respectable figure corresponding with the increased service demanded, nor that the State University has increased the salary of the university physician.

THE following item appeared in the *Sedalia Capital*, July 27:

Dr. W. F. Burton was arrested Wednesday on a state warrant charging him with practicing medicine without a license. Justice John B. Rickman set Thursday for Dr. Burton's trial and permitted the defendant to depart on his own recognizance. When the case was called for trial yesterday it was learned that Dr. Burton had left Sedalia on a Missouri Pacific train at 3 o'clock yesterday morning, having purchased a ticket to Kansas City. The doctor, it appears, missed the train connections and failed to get back to Sedalia in time for the trial. The court officers were of the opinion that Dr. Burton has gone to his former home in Kansas to reside.

THE spirit of organization in Worth County is awakening from a long attack of somnolence, and in September the county society will hold a "revival" meeting. This is very encouraging news and we anticipate a renewal of the splendid activity and progressiveness which characterized this society about two years ago. There are many splendid physicians in Worth county, all of whom ought to be active in lifting and maintaining the high standards of the profession not only in the county but throughout the state. We will announce the result of the meeting in the October issue.

THE St. Louis Health Department has commenced publishing a monthly bulletin. The first number appeared in July. The bulletin is devoted to the "Dissemination of information and advice to the people of St. Louis concerning sanitation and disease prevention, and to obtain the cooperation of citizens to improve health conditions and reduce disease and sickness." The first number contained the following articles: "The Child or the Dog?" "Outing Cautions," "The Mosquito," "The Vacant Lot," "Garbage," "The Health Certificate and the Right to Marry," "Typhoid Fever." Also a page announcement of the Health Department on how to kill the mosquito, and other items concerning hygiene and sanitation. The bulletin is edited and distributed under the direction of Dr. M. C. Starkloff, Health Commissioner, and Dr. G. A. Jordan, Assistant Health Commissioner.

THE first International Congress of Comparative Pathology has been announced and will convene at the Faculty of Medicine of Paris, October 17 to 23, 1912. At this Congress not only will the diseases common to men and animals be the object of the many communications and reports that have already been received, but the relations that may exist between the diseases of the different species of animals will be discussed. Vegetable pathology and the relations that may exist between some diseases of plants and those of animals will also occupy the attention of the Congress. The most eminent scientific personalities belong to the Committee of Organization and

selected Dr. Roger, Professor of Experimental and Comparative Pathology at the Faculty of Medicine at Paris, as President, with M. Grollet, 42 rue de Villejust, as General Secretary. All correspondence must be addressed to the General Secretary, 42 rue de Villejust, Paris.

THE Council on Pharmacy and Chemistry has approved the following articles for inclusion with New and Nonofficial Remedies:

Cresatin (Schieffelin & Co.).
Bismuth Betanaphtholate (H. K. Mulford Co.).

Cholera Bacterin (H. K. Mulford Co.).
Typho-Bacterin, Mixed (H. K. Mulford Co.).
Ointment of Cargentos and Ichthyol (H. K. Mulford Co.).

Syrup of Quinin with Chocolate (H. K. Mulford Co.).

Urethral Suppositories Adrenal Comp. (H. K. Mulford Co.).

Vaginal Suppositories Adrenal Comp. (H. K. Mulford Co.).

Adrenal Comp. Lozenges (H. K. Mulford Co.).
Adrenal Ointment (H. K. Mulford Co.).

Adrenal Rectal Suppositories, 5 grs. (H. K. Mulford Co.).

THE third Clinical Congress of Surgeons of North America will be held in New York City, the week of November 11 to 16. The Congress was organized in Chicago three years ago as a result of an informal invitation issued by *Surgery, Gynecology and Obstetrics* to its subscribers to attend for a fortnight the surgical clinics of the surgeons of Chicago. The attendance at that meeting was so astoundingly large (more than 1,500) and the success of the clinical phase so great that a permanent organization was effected. The second meeting at Philadelphia last year, with its large attendance, thoroughly established the popularity of such meetings and a general demand that New York City should be the next meeting place was unanimously voiced by those present. The New York surgeons have entered into the preparations for this third meeting with such enthusiasm as to safely predict that the November meeting will be the largest and most successful surgical meeting ever held. For further information write Dr. Franklin H. Martin, 31 North State Street, Chicago.

DEATHS

BENJAMIN B. PUTMAN, of Marceline, died July 24, aged 68 years. He was a graduate of the Medical Department of Washington University, St. Louis, 1872, and a member of the Linn County and State Medical Associations.

HENRY J. C. SIEVING, St. Louis, died June 21, aged 54 years. He graduated from the Beaumont Medical College, St. Louis, in 1897, and was a member of the St. Louis Medical, the State Medical and the American Medical associations.

SAMUEL WOOD COSSINS, M.D., died at his home in Bolivar, Mo., Aug. 10, 1912. Dr. Cossins was born in Polk County, Mo., Aug. 27, 1861. He was educated in the public schools and the Southwest Baptist College. He graduated in medicine at the Missouri Medical College (now Washington University) in 1887, and was licensed to practice June 6, 1886. After practicing for several years at Morrisville, and two other places in Missouri, he was elected county clerk of Polk County, moved to Bolivar in 1910, and this same year he took a post-graduate course at Washington University. Dr. Cossins was an honored and competent member of the profession. He was a member of Polk County Medical Society, the Southwest Missouri Medical and the Missouri State Medical associations.

T. B. McCLINTIC, M.D., United States Public Health Service.—The death of Dr. T. B. McClintic of the United States Public Health Service on August 13, recalls his visit to St. Louis to attend the funeral of the late Walter Wyman, Surgeon-General of the Public Health Service; Dr. McClintic being the official representative of the Public Health Service detailed by the acting surgeon-general and an active pallbearer. Drs. Wakefield and Warren, resident surgeons of service at St. Louis, were also present at the funeral of Dr. Wyman. In the short time he was in St. Louis, Dr. McClintic made a most favorable impression on the physicians whom he met. His loss is keenly felt by the Public Health Service and the profession generally.

Tributes to the memory of men whose lives have been sacrificed in the warfare against disease are becoming more frequent in channels removed from the profession itself, which is a most encouraging evidence of a growing appreciation among laymen of the achievements of scientific medicine toward the amelioration and prevention of disease. As indicative of this sentiment we present comments on the death of Dr. McClintic, published in two newspapers, one in Springfield, Mass., the other in Joplin, Mo. The Springfield (Mass.) *Daily Republican* said:

The long roll of martyrs to the cause of medical science is lengthened by the death Tuesday of Dr. T. B. McClintic of the Marine-Hospital Service. Most of the major infectious diseases have claimed their victims among the scientific investigators. Dr. McClintic succumbed at the very moment of success in a gallant warfare, to one of the most terrible of them all. For two years he had been investigating and combating an epidemic of spotted fever in Montana. The disease in the form in which it is found in the Rocky Mountains is transmitted by a tick, and has been found very baffling. Dr. McClintic was engaged in the Bitter

Root Valley in Montana, where the epidemic was worst, and had been notably successful; no case was reported this year until he himself was stricken. He was at once taken to Washington for treatment, but it soon appeared that the case was hopeless. Medical service has its heroes no whit inferior to those of war, and the services of men like Dr. McClintic must be remembered with honor and gratitude.

The Joplin (Mo.) *Globe* commented as follows:

Answering the call of duty is not necessarily a dangerous business. There are duties and duties and most of us sense only those that call for no special display of courage and no special personal risk, although they may be stern and solemn duties well worthy of our greatest energies and noblest impulses.

But to some men the call of duty echoes a note of real and dreadful danger. When they answer they must needs appreciate that to win means more, but to lose means life itself. They must weigh in the balances their desire for life against the call to arms and when they answer they must have signified their willingness to pay the last great tribute of devotion.

It was such a call as this that came some months ago to Dr. T. B. McClintic of the Public Health and Marine-Hospital Service, when he was delegated to go to Montana to fight an epidemic of Rocky Mountain spotted fever. A short time before he had been married, and the call to fight a disease recognized as communicable and generally fatal must have come as an unwelcome call. He would have been scarcely human had it been otherwise. But he did not falter.

Tuesday Dr. McClintic died in the hospital at Washington of the disease he had gone to Montana to fight. After contracting it, supposedly in his laboratory work, he was hurried across the country in the hope that his life might be saved, but the trip was in vain.

But out in Montana the dreaded fever has been practically eradicated as a result of this one doctor's work. Unquestionably, hundreds of lives have been saved and something worth while has been added to the modern science of preventive medicine.

And so it is that back in Washington the bride of an interrupted and now forever ended honeymoon must seek, as have other women sought in the past, what consolation she may from the fact that her husband was called by duty as other men are not called, and that he answered the call as brave men must.

MISCELLANY

LEGAL RESPONSIBILITY OF PHYSICIAN TO PATIENT

We have at various times been asked by members what is the legal responsibility of the physician to the patient in regard to continuance of professional services after having taken charge of a case and we thought it worth while to obtain the opinion of the Attorney-General of the state on this question. We append the reply received from the Attorney-General's office:

Dr. E. J. Goodwin, St. Louis, Mo.

Dear Doctor: Replying to your recent inquiry relative to the right of a physician to discontinue attendance upon a patient after having taken charge of his case, would say, the appellate courts of this state have not directly passed upon this question, in so far as I am informed, but the general law upon this subject is stated in the Ency. of Law and Procedure about as follows: A physician responding to the call of a patient

thereby becomes engaged, in the absence of an agreement to the contrary, to attend to the case as long as it requires attention, unless he gives notice to the contrary or is discharged by the patient, and is bound to use ordinary care and skill, not only in his attendance, but in determining when it may be safely and properly discontinued.

Very truly yours,

CHAS. G. REVELLE,
Assistant Attorney-General.

Physicians should bear this in mind when responding to calls which they do not desire to continue, and protect themselves by stipulating that their services are limited to that one visit.

SOCIETY PROCEEDINGS

MEETING OF THE EXECUTIVE COMMITTEE, JULY 7, 1912

The Executive Committee met in called session in the office of the Secretary, on July 7, 1912, at 1 p. m. Present, Dr. Lutz, Chairman, Dr. McComas, Dr. Finkhouser, Dr. Goodwin, Dr. A. H. Hamel, Mr. J. T. Stinson, Secretary of the Missouri State Fair.

The Secretary of the Committee presented the application for a duplicate charter for Morgan County Medical Society to replace the original charter which had been lost. On motion, duly seconded, the secretary was instructed to send a duplicate charter to the society.

Mr. Stinson was asked to state his ideas in regard to the erection of a building at the State Fair grounds, for teaching hygienic and sanitary rules to the people and holding an exhibit on these topics, as well as for hospital purposes. Mr. Stinson suggested that an exhibit could be held this year as a preliminary to the request from the Legislature for funds for a permanent building. The matter he said, would have to be proposed by the State Board of Agriculture.

A general discussion of the proposed hygienic and sanitary exhibit took place, the result of which was as follows:

That the Missouri State Medical Association should undertake to direct the installation of the exhibit and invite the various state health agencies to cooperate in the undertaking. The Secretary was instructed to keep in communication with Mr. Stinson, so that the plans might be completed in time for making a creditable exhibit at the coming session of the Fair.

The Chairman, Dr. Lutz, was requested to see Mr. Dallmeyer, the President of the State Fair, and enlist his interest and cooperation. The Secretary was instructed to write and invite the following Boards and Societies to take part in this exhibit:

The State Board of Health, the State Veterinarian, the State Pure Food and Drug Commissioner, the State Board of Agriculture, the State

Association for the Prevention and Relief of Tuberculosis and the St. Louis Board of Health.

The Secretary was also instructed to write the following members of the Association to deliver short lectures on topics named: Dr. Franklin E. Murphy, Kansas City, on "Vaccination"; Dr. O. W. H. Mitchell, Columbia, on "Water Supply and Typhoid Fever"; Dr. F. J. Lutz, St. Louis, on "Cancer"; Dr. R. M. Funkhouser, St. Louis, on "Venereal Diseases"; Dr. C. H. Neilson, St. Louis, on "Tuberculosis"; Dr. J. W. Mott, Poplar Bluff, on "Trachoma"; Dr. P. M. Carrington, of the Marine-Hospital Service at St. Louis, on the "Plague."

The resignation of Dr. R. M. Funkhouser as Chairman and a member of the Committee on Public Policy and Legislation, was read by the Secretary, and on motion accepted. A vote of thanks of the Association for the efficient and faithful services performed by him during the last session of the legislature was tendered Dr. Funkhouser.

Dr. Funkhouser suggested that Dr. A. W. McAlester, Jr., Kansas City, be appointed a member of the Committee on Public Policy and Legislation to fill the unexpired term. On motion the suggestion was accepted, and Dr. McAlester was appointed.

On motion of Dr. Funkhouser, Dr. A. R. McComas was appointed Chairman of the Committee on Public Policy and Legislation.

Dr. McComas moved that the name of the Committee on Ophthalmia Neonatorum be changed to the Committee on Trachoma. Carried.

The President suggested the appointment of Dr. C. M. Jackson of Columbia, to succeed himself as a member of the Committee on Medical Education for the term of three years. This was seconded and carried.

The President suggested the following members of committees which, after consideration, were confirmed by the Executive Committee:

The Committee on Tuberculosis: C. H. Neilson, St. Louis, Chairman; J. C. Parrish, Vandalia; Geo. W. Vinyard, Jackson; F. E. Murphy, Kansas City; A. W. Kampschmidt, Columbia; J. P. Burke, California; A. J. Detweiler, Hannibal; V. O. Williams, Nevada.

The Committee on Trachoma: A. W. McAlester, Jr., Kansas City, Chairman; James W. Mott, Poplar Bluff; Frank Henderson, St. Louis; John S. Weaver, Kansas City; T. A. Coffelt, Springfield; Barton Pitts, St. Joseph.

Committee on Vaccination: Joseph Grindon, St. Louis, Chairman, term expires 1915; William Frick, Kansas City, term expires 1914; F. B. Hiller, Jefferson City, term expires 1913.

Committee on Medical Expert Testimony: C. R. Woodson, St. Joseph, Chairman; E. H. Thrailkill, Kansas City; C. H. Shutt, St. Louis; Marsh

Pitzman, St. Louis; Thomas Chowning, Hannibal.

Committee on Revision of Constitution and By-Laws: T. O. Klingner, Springfield, Chairman; Geo. Goins, Breckenridge; Thos. H. Duckett, Milford.

Committee on Necrology: J. E. Harris, Marshall, Chairman; Robert Barclay, St. Louis; Wm. H. Evans, Sedalia.

On motion, adjourned.

JULY 31, 1912

A called meeting of the Executive Committee convened in the office of the Secretary on July 31, at 1 p. m. Present: Dr. Lutz, Chairman, Dr. L. W. Cape, Dr. R. M. Funkhouser, Dr. E. J. Goodwin.

Dr. Funkhouser informed the Committee that the Crawford County Medical Society had been organized on July 25, with ten charter members, himself and the Secretary of the Association being present to assist in the organizing.

The Secretary read the application of the Crawford County Medical Society for a charter as a component society of the Missouri State Medical Association. Dr. Funkhouser moved that the charter be granted, and that the state assessment paid by the Crawford County Medical Society for 1912 be credited to 1912 and 1913, and that no assessment be made against charter members of the Crawford County Medical Society for 1913. Seconded and carried.

The Secretary informed the Committee that the Texas County Medical Society was in process of organization, and that he had an invitation from Texas County doctors to attend a meeting at Houston on August 8, for the purpose of organizing the Texas County Medical Society. The Secretary also informed the Committee that Worth County Medical Society was preparing to hold a meeting in September for the purpose of reviving the interest in society work, and that they had invited the Secretary to meet with them and assist in renewing the activity of this society.

On motion, the Secretary was instructed to attend Texas County Medical Society meeting on August 8, and organize that society.

A discussion of the conditions in Lincoln County took place and the Secretary was instructed to ascertain the prospects of reorganizing this society.

The Secretary informed the Committee of the desire on the part of some of the doctors in Dallas County to organize a society in that county, but that there were hardly sufficient number to maintain an active county society. He suggested that steps be taken to hyphenate Dallas County with Polk County, and was instructed to correspond with the Councilor of the district and with the Secretary of Polk County, with this end in view.

On motion, adjourned.

ADAIR COUNTY MEDICAL SOCIETY

Regular meeting of the Adair County Medical Society, Aug. 1, 1912. The meeting was called to order by the president, Dr. J. W. Martin at 1 p. m., at the office of Dr. M. E. Derfler in Novinger.

The June and July meetings were passed on account of the dates conflicting with those of the Missouri State and the North Missouri meetings.

It was unanimously voted to thank Dr. Fred. J. Taussig for the excellent talk given on behalf of the Barnard Free Skin and Cancer Hospital of St. Louis. One talk was given on June 29, at Kirksville, Mo., and another on June 30, at Novinger. The object of these talks was to get the malignant cases to the hospital earlier, the records showing that 90 per cent. of the cases when received are incurable.

Dr. C. S. Wilson offered the following motion, "That some physicians in special work be invited to give a clinic under the auspices of the society at its regular meeting in September or October, at the convenience of the men so invited." Motion carried and chair appointed a committee to make the arrangements.

Dr. B. B. Parrish moved that the secretary notify all members by card of meetings. Carried.

Dr. M. E. Derfler read a paper on "Palmer Abscess." Early and free incision was advised, no irrigation and a wet normal saline sol. gauze pack, changed every eight hours. The paper was discussed freely.

Summer brings on a general relaxed interest in society affairs and society attendance.

The following resolutions were ordered incorporated in the minutes:

WHEREAS, The Missouri State Medical Association is in excellent condition and desiring to maintain that standard of superiority over other state associations, and

WHEKEAS, The Adair County Medical Society desires to see honored those men who participate in all its functions, and that in Dr. R. M. Funkhouser of St. Louis the Missouri State Medical Association has had an untiring worker, a loyal supporter, a man of high attainments in medicine and other fields, a true and ethical physician, and above all a man in every respect, and in recognition of his splendid work as chairman of the Committee on Public Policy and Legislation the Adair County Medical Society does hereby urge Dr. R. M. Funkhouser of St. Louis to become a candidate for president of the Missouri State Medical Association, and we hereby pledge him our hearty support and trust that other county societies will join us in our support of his candidacy; and, be it

Resolved, That a copy of these resolutions be sent to all county societies, secretaries, and to the secretary of the Missouri State Medical Association.

BENTON COUNTY MEDICAL SOCIETY

The Benton County Medical Society held its regular meeting in Warsaw, August 8, in Dr. H. G. Savage's office. Dr. Marion Dillon of Fairfield, the president, called the meeting to order at 10 a. m.

The regular meeting that should have been held the first of June did not convene as the president, Dr. Marion Dillon, was taking a three weeks' post-graduate course in Chicago and six weeks course in New York, so could not attend, and Dr. H. E. Dunlop, of Cole Camp, vice-president, was detained on account of extra business the same as others of the society.

Dr. Dunlop read a very interesting paper on "Ergot; Its Uses and Abuses." He cited many cases in labor that it had proved of great benefit, especially in inertia. He recommends its use highly in nearly every case of retarded labor, and says that in his twenty-six years of practice with over six hundred accouchments, he has never been detained over 6 to 8 hours, and believes that the use of ergot (fl. ext.) has been responsible in a great degree in promoting early termination of labor with not a single case on record of injury to the mother or child.

Every member present entered into a hearty discussion of the subject pro and con. Dr. Smith had twenty-five years' experience with something like 600 confinements and for the first five or six years thought that ergot was a positive necessity, but for the past twenty years, he has given none, only as needed to

prevent dangerous after results. Like Dr. Dunlop he has very seldom if ever been detained over six or eight hours, but he attributes the prompt response and termination of the case more to the mode of handling the case in assisting the mother, in connection with a large dose of quinine in the beginning and a hypodermic of H. M. C. (full strength) at about the second stage. This stimulates and yet relieves, with the addition of dilating the neck, which insures prompt response and early termination.

Dr. Dunlop, closed the discussion by saying that it was not right to allow a case (as many do) to drag along and not be delivered early when you had the means at hand to assist you, and thus save the hours of suffering and suspense to parents and friends. The doctor referred to a case of confinement where he was called in consultation, after the attending physician had been there seventy-two hours, with the woman in hard labor. Here he demonstrated the powerful and beneficial effect of ergot, as he gave a full dose of the fl. ext. and in a very short while the mother was delivered of a fine large child with no unpleasant after effect whatever.

Dr. Pomeroy presented the application of Dr. Snarely of Edmonson for membership to the society. This will be voted on at the next regular meeting.

The case of Dr. C. C. Clark of Hastain, was taken up. This man is practicing in violation of the State Board laws, and was reported a year ago, but nothing has been done. The case is to be pushed to completion.

The next meeting was called for October 16. Dr. E. H. Gist of Fristoe was asked to prepare a paper for that meeting and the doctors of Warsaw to furnish a clinic, which they agreed to do, and a good dinner for all visiting members is assured by the Warsaw division of the Society.

Upon motion the meeting closed to meet Wednesday, October 16, 10 to 2.

Members present: Drs. Marion Dillon, Fairfield; H. C. Dunlop, Cole Camp; E. H. Gist, Fristoe; E. L. Rhodes, Lincoln; E. F. Haynes, Warsaw; H. G. Savage, Warsaw; R. L. Pomeroy, Warsaw; J. R. Smith, Warsaw.

J. R. SMITH, M.D., Secretary.

CASS COUNTY MEDICAL SOCIETY

The Cass County Medical Society met in Harrisonville, August 8, at 1:30 p. m., with the following members present: Drs. Crawford, Dodd, Jerard, Ramey, Triplett and Wright. The president being absent, Dr. H. Jerard presided.

The program consisted of reports of cases of interest among which we recorded the following: Dr. J. S. Triplett reported a case of endothelioma of the lymph nodes of the neck. Dr. H. S. Crawford reported a case of malaria with peculiar nervous symptoms. Dr. C. L. Dodd reported a case of peculiar symptoms following labor, that was diagnosed as "broken adhesions from muscular action of labor pains." These cases were all carefully discussed, and many interesting points brought out.

It was decided to celebrate the tenth anniversary of the organization of the Cass County Medical Society in some fitting manner at the December meeting.

H. S. CRAWFORD, M.D., Secretary.

CLAY COUNTY MEDICAL SOCIETY

Clay County Medical Society met in the parlors of the Plaza Hotel, Excelsior Springs, July 6. While the attendance was not large, the meeting was one of unusual interest to all present. The out-of-town physicians present were: Drs. L. Collier of Kearney, E. H. Miller of Liberty, C. C. Conover of Kansas City. The local physicians in attendance were: Drs. Watts, Bullock, Parker, Robichaux, Lawrence, J. M. Gaines and G. W. Gaines.

Dr. Conover read an interesting paper before the society and it was discussed at length. Dr. Miller pre-

sided at the meeting. The society will not meet in August, the next session to be held in Liberty in September.

CLINTON COUNTY MEDICAL SOCIETY

The third quarterly meeting of the Clinton County Medical Society was held at the Court House in Plattsburg on Wednesday, July 31. This was an open meeting the public being invited. The following program was rendered:

Dr. F. W. Froehling, of Kansas City, gave an address on "Arteriosclerosis with Some of the Most Important Symptoms of Special Interest to the Laity."

Dr. St. Elmo Sanders of Kansas City talked on "Stomach Disorders Due to Surgical Conditions in the Abdomen."

Dr. George B. Norberg, of Kansas City, read an interesting paper on "Cancer of the Uterus."

Dr. C. M. McConkey of Lathrop, gave a splendid address on "The Medical Profession as It Relates to the Prevention of Disease and Some of the Factors that Retard It in Its Work."

The Society appreciated the visit of the gentlemen from Kansas City. The meeting was made more successful by their presence and all enjoyed and were benefited by the proceedings.

FRANK FULTON, M.D., Secretary.

GENTRY COUNTY MEDICAL SOCIETY

Gentry County Medical Society held a special meeting at Darlington, July 23. Ten members were present. Dr. T. S. Bishop of Albany was elected to membership. This leaves only four eligible physicians in the county not now in the fold and we expect to have them with us by the end of the year.

The meeting was full of interest and instruction and everyone enjoyed the proceedings. The special topic of discussion was the adoption of the fee bill; all members signed the agreement and everyone is satisfied with the progress being made. The new members are full of enthusiasm over the work of the society and will take a leading part in the proceedings.

The next meeting will be held at Darlington in August.

G. W. WHITELEY, M.D., Secretary.

HOWELL COUNTY MEDICAL SOCIETY

The Howell County Medical Society met as guests of the Commercial Club of West Plains, for luncheon in the Arcade Hotel, Friday, August 9. It being regular club-meeting day, the club graciously gave the time to the physicians of the Association, calling it "Physicians' Day."

Dr. Jas. H. Elliott was appointed toastmaster. Short addresses were given by Drs. H. C. Shuttee, E. E. Evans, A. H. Thornburg and Judge W. N. Evans. Dr. E. J. Goodwin, of St. Louis, Secretary of the State Medical Association, gave an interesting and instructive address on the subject of "Municipal Sanitation."

The visiting physicians together with Dr. Goodwin were elected to honorary membership in the club.

At 2 p. m. the official session of the society met in Drs. Nichol's and Elliott's office where the regular business of the society was transacted.

Officers present, Dr. A. H. Thornburg, president; Dr. James H. Elliott, secretary and treasurer. Members present: Drs. J. D. Black, H. J. Rowe, E. P. Cowgill, J. C. B. Davis, Robert S. Spears, L. W. Wuesthoff, E. E. Evans, J. McB. Johnson, H. C. Shuttee and Jas. H. Elliott. Visitors Dr. L. M. Edens, of Cabool, Secretary of Texas County Medical Society, W. C. Sumner, Strafford, and Dr. E. J. Goodwin of St. Louis.

Dr. J. C. B. Davis, of Willow Springs, read a very able and instructive paper on the subject of "Public

Health." This was discussed by Drs. Evans, Shuttee, Wuesthoff and Goodwin. After which it was the unanimous request of the society that the paper be printed in the county papers and in the MISSOURI STATE MEDICAL JOURNAL for public distribution.

The essayists appointed by President Thornburg for the October meeting are, Drs. H. C. Shuttee, Jas. D. Black and L. W. Wuesthoff who were given the privilege of choosing their own subjects.

On motion, the Association adjourned to meet at First Presbyterian Church at 8 p. m.

At the night session which was a public meeting, Dr. Goodwin gave another able and instructive address on the subject of "Sanitation." He explained to appreciative hearers the serious effects of deficient hygiene, giving a brief history of antiseptics and germ action in disease; also explaining the investigations of scientists in the prevention of diphtheria, yellow fever, small-pox, hookworm disease, typhoid fever and the need of sanitation in the public schools. He strongly advocated medical inspection of school children.

JAMES H. ELLIOTT, M.D., Secretary.

LINN COUNTY MEDICAL SOCIETY

The regular quarterly meeting of the Linn County Medical Society was held in Brookfield, at the office of Dr. Robert Haley, Tuesday evening, July 23.

Dr. S. T. Brookfield read a valuable paper on "Anesthetics," and this was the principal subject of discussion.

An important action taken at this meeting makes Brookfield the permanent place of meeting. Nearly every regular physician in this city as well as Drs. Buck and Stratton of Rothville, are members of the Society and for all of them as a body this city seems to be the logical meeting point. This was the consensus of opinion after having tried the plan of first one town and then another over the county.

Since the first of the present year the society has lost three members by death, namely Dr. T. P. Oven of Brookfield, Dr. H. C. Johnson of Meadville and Dr. B. B. Putnam of Marceline.

RALLS COUNTY MEDICAL SOCIETY

Ralls County Medical Society held a public meeting at Spaulding Springs, July 18. The scientific program consisted of the following papers:

"The History of Medicine, and What has Medicine Accomplished," by Harry Norton, M.D., of Center.

"The Different Symptomatology of Aortic Aneurysm," by R. C. Strole, M.D., of Mexico.

"Hygiene of the Little Red School-House," by Col. Joe Burnett, editor of *Ralls County Record*.

The discussion on these papers was participated in by the following: Drs. Chowning, Bounds, Strole, Harwood, Norton, Moore, Water, Graves, Downing, Hendrix, Goodwin, and Mr. O. E. Hulse, County Superintendent of Schools. The following subjects were discussed by all the members:

"What Shall the Doctor Say to the Family or Friends When a Diagnosis of Appendicitis Is Made?"

"What Shall Be His Attitude, When by Neglect, or Rather by Delay, the Case Goes on to Suppuration?"

"Are the advantages of Hospital Treatment Sufficient to Justify Us in Removing Our Patients Very Far by Train or Other Conveyance in Both Acute and Abscess Cases?"

"What Advantage Has Operation During Interval Over Immediate Operation?"

"Would it Not be Safe to Operate all Non-Abscess Cases at the Home of Patient, Both Acute and Interval Cases?"

"Is It Ethical for the Name of the Doctor to Appear in the County Newspapers as the Attending Physician?" Dr. W. G. Hendrix opening the discussion.

The meeting was in every respect most enjoyable, and the presence of a large number of the people showed that the work of the County Society is being appreciated. The talk by Mr. Hulse upon the hygienic and sanitary care of the school-house was most interesting and instructive.

Dr. Goodwin, Secretary of the State Association explained the objects and purposes of the medical organization in relation to the protection of the health of the people, and made a plea for heeding the advice of the family physician and having confidence in him rather than to run after the traveling faker and the sure cure advertising doctor.

T. J. DOWNING, M.D., Secretary.

ROLLA DISTRICT MEDICAL SOCIETY

Rolla District Medical Society held its 74th semi-annual session at Cuba, June 27; about twenty members and visitors were present.

The following papers were read:

"Summer Diarrheas of Childhood, with Special Reference to Cause," Dr. E. L. Cooley, St. Louis.

"The Modern Conception of the Etiology and Treatment of Syphilis," Dr. Jos. L. Boehm, St. Louis.

"Uterine Cancer: Its Early Recognition by the General Practitioner," Dr. John C. Murphy, St. Louis.

"Should the Canons of Fracture Treatment be Modified?" Dr. F. J. Lutz, St. Louis.

"Diagnosis and Treatment of Meningitis," Dr. John Zahorsky, St. Louis.

The meeting was highly interesting and the visitors were very enthusiastic in their praise of the work of the Society.

SCHUYLER COUNTY MEDICAL SOCIETY

Schuyler County Medical Society met in regular session, in Dr. B. W. Hight's office, Queen City. The meeting was called to order by President Justice. Members present: Drs. W. H. Justice, W. A. Potter, B. W. Hight, W. H. Zieber, A. J. Drake and J. B. Bridges.

Dr. W. H. Zieber presented a patient with ulceration of the cornea. This was quite an interesting case, and was discussed by all members present.

Dr. B. W. Hight reported a case of appendicitis of peculiar etiology and pathology. This was also discussed.

Society adjourned to meet at Downing, October 7, 1912. Subject, "Uterine Fibroid."

J. B. BRIDGES, M.D., Secretary.

WAYNE COUNTY MEDICAL SOCIETY

The Wayne County Medical Society met June 11, 1912, in the office of Dr. L. E. Toney, Piedmont. Dr. G. W. Toney presiding and Dr. W. S. Bailey acting secretary. Present: Drs. G. W. Toney, J. E. Gilmer and L. E. Toney of Piedmont; Dr. A. O'Bannon of Annapolis and Dr. W. S. Bailey of Leeper. Dr. A. O'Bannon of Annapolis was elected and became a member of the society.

Dr. G. W. Toney discussed the subject of gall-stones and exhibited a specimen which had been removed from a patient.

Dr. A. O'Bannon related his experience with chronic constipation in a child 7 months old, who was born with left side atrophied.

Dr. J. E. Gilmer told of a patient who had recently expelled a live leech during a fit of coughing.

There was an informal discussion of the Principles of Medical Ethics.

Moved and carried that the next session meet at Leeper and the fee bill and collections be discussed.

W. S. BAILEY, M.D., Acting Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Non-official Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn avenue, Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

ARTICLES ACCEPTED FOR N. N. R. APPENDIX:—

Syrup of Quinine with Chocolate, containing quinine sulphate 2.156 gm. in 100 c.c. (10 grs. in a fluid ounce).

Ointment of Cargentos and Ichthyol, containing cargentos 5 per cent. and ichthyol 5 per cent. (*Jour. A. M. A.*, Aug. 3, 1912, p. 369).

REFORM IN MEDICINES

THE GERMAN COUNCIL ON PHARMACY AND CHEMISTRY.—As was to be expected German manufacturers are opposing the newly established German Council on pharmacy and chemistry. One phase of this protest is especially characteristic of Germany's tendency; it is charged that this report is liable unfavorably to affect the sale of German proprietaries in foreign countries. To those physicians who feel that patriotism demands the support and advancement of all German industry regardless of its character, we would say that the time has long passed when we in this country took as gospel truth the claims made in German advertising circulars and in the many articles exploiting proprietaries which come to us in the form of reprints from German medical journals (*Jour. A. M. A.*, Aug. 10, 1912, p. 452).

CERTIFIED PHARMACIES.—The plan of examining pharmacies and issuing licenses to those which are found properly equipped, competent and reliable was recently proposed at a joint meeting of the Medical Society of the County of New York and the New York branch of the American Pharmaceutical Association. While the establishment of requirements for such certifications should be carefully considered, the need of a dividing line between the druggist whose energies are chiefly devoted to the sale of cigars, chewing-gum, soda-water and patent medicines, and the pharmacist to whom one may safely entrust the compounding of prescriptions is so urgent that we shall look forward to the outcome with much interest (*Jour. A. M. A.*, Aug. 10, 1912, p. 461).

MIDOL AND NURITO.—Repeated warning to the public of the dangers of acetanilid, antipyrin and acetphenetidin has largely been responsible for the growing unpopularity of nostrums containing these drugs. As a result pyramidon, a product closely related to antipyrin, is entering the patent medicine world in the form of "Midol" and "Nurito." Midol is exploited by the General Drug Co., which appears to be connected with the Consolidated Color and Chemical Works and Victor Koechl & Co. Examination made in the Association's Chemical Laboratory indicated that the headache remedy "Midol" consists essentially of pyramidon, while

Nurito consists of powders each containing pyramidon 6-2.3 grains and phenolp. thalein 2.3 grain (*Jour. A. M. A.*, Aug. 10, 1912, p. 461).

RHEUMATISM PHYLLACOGEN.—A physician inquires: "What do you know for or against Rheumatism Phyllacogen, put up by Parke, Davis & Co.? Quite a number of my patients ask me about it, and I am unable to tell them anything, except that, as I know nothing of it, I will not use it." The resolution not to use this remedy, since he knows nothing of it except the information furnished by its promoters, is the proper one. Physicians have no moral right to employ remedies of whose nature they are ignorant nor should they accept the statement of interested parties who fail to give them full scientific information. Until further reliable information as to composition is furnished the preparation must be regarded as a possibly dangerous nostrum. (*Jour. A. M. A.*, Aug. 10, 1912, p. 464.)

HORMONAL.—Hormonal was accepted by the Council on Pharmacy and Chemistry for inclusion in New and Nonofficial Remedies, in view of the favorable reports concerning its action which have been made in the literature. Since its acceptance, a number of cases have been reported in which more or less alarming collapse has occurred during or immediately following its administration. The collapse is attributed by Zuelzer, the originator of the preparation, to an impurity of albumose. It is evident that the remedy should be employed with great caution. (*Jour. A. M. A.*, Aug. 10, 1912, p. 465.)

RADIOACTIVE SUBSTANCES IN THERAPY.—From a discussion on the therapeutic value of radioactive preparations at the German Congress of Internal Medicine in April of this year, the conclusion seems to be justified that very large doses of the emanations or of the thorium X solutions are necessary to secure therapeutic results and in these cases the therapeutic results appear to be separated from the toxic action by a very narrow margin. It is evident, therefore, that the use of these substances is still in the experimental stage, that little if any effect is to be expected from preparations on the market, especially as they contain only extremely minute doses which, although probably safe, are probably also worthless. (*Jour. A. M. A.*, Aug. 17, 1912, p. 541.)

MEDICAL MEETINGS AS ADVERTISING MEDIUMS.—The promotion of a proprietary nostrum by means of papers read before a medical meeting has gone out of vogue in this country. But while conditions have improved here, they seem to have grown worse in Germany. Now, however, it appears that a halt will be called before long. Recently Dr. Bernheim of Paris, who is much interested in the exploitation of a new "consumption cure" read a paper before the German Congress for Internal Medicine. Later this paper was reprinted and distributed by the promoters of dioradin. Included with this reprint were testimonials which originally were not a part of the paper. The reprint bore the imprint "German Congress for Internal Medicine" and thus the society was made to lend official sanction to the testimonials. In view of this a protest has been issued by the presiding officer, Professor Penzoldt. This protest is evidence that the German medical profession is awakening to the wretched conditions which have developed in that country in connection with the exploitation of proprietary medicines. (*Jour. A. M. A.*, Aug. 17, 1912, p. 549.)

AN OPPORTUNITY FOR THE PHARMACIST.—Although the pharmacist can do much toward the advance of

medicine and also toward the improvement of the public health, his commercial tendencies have to a large extent made him lose sight of his opportunity. While, in particular, the tendencies of the National Association of Retail Druggists towards the perpetuation and extension of the patent medicine and the nostrum business have not been a credit to pharmacy, *N. A. R. D. Notes*, the official organ of the N. A. R. D. has started a public health propaganda department in which the druggist is urged to protect the public by giving advice as to the seriousness of various diseases and the need of their treatment by trained physicians. When it is considered that a large number of people go to their druggist for advice or treatment for ailments of all kinds, the opportunity which is in the hands of the pharmacist will be appreciated. (*Jour. A. M. A.*, Aug. 17, 1912, p. 560.)

MARJORIE HAMILTON OBESITY CURE AFTERMATH.—Following the exposure of the Marjorie Hamilton Obesity Cure (*Jour. A. M. A.*, March 16, 1912, p. 798) the United States postal authorities took a hand and on June 7, 1912, W. C. Cunningham and his wife, Marjorie Hamilton Cunningham, were indicted by the federal grand jury and placed under arrest for fraudulent use of the mails. Although, since the Marjorie Hamilton business was exposed, Cunningham has branched out into a new mail-order fake line, a "quick wrinkle remover" introduced by "Princess Tokio," the Denver papers now announce that he will withdraw from business and confine himself to the European field—where frauds of this sort are less liable to be molested. (*Jour. A. M. A.*, Aug. 17, 1912, p. 561.)

TYREE'S ANTISEPTIC POWDER.—For years Tyree's Antiseptic Powder was advertised to the medical profession with claims that were unwarranted as to both composition and therapeutic effect. Analyses show that the preparation was essentially nothing but a simple mixture of sulphate of zinc and boric acid. The medical profession having prescribed the nostrum, the original package scheme did the rest and now Tyree's Antiseptic Powder goes to the public direct. It is now advertised in newspapers as "Ideal for douche," "Best preventative known," etc. That a nostrum of this sort should go to the public is not surprising, but that it should have reached the public through the instrumentality of the medical profession is a serious reflection on the judgment of physicians. That the exploiters of this nostrum no longer find it profitable to use medical journals as a means of getting their stuff to the public but must needs use the more expensive newspaper advertising, is cause for optimism. It means that physicians are no longer prescribing indiscriminately, proprietary products and that they are refusing to be, what they have been in the past, the unpaid distributing agents for nostrum venders. (*Jour. A. M. A.*, Aug. 24, 1912, p. 666.)

BOOK REVIEWS

CHILDREN—THEIR CARE AND MANAGEMENT. By E. M. Brockbank, M.D., Viet., F.R.C.P., Hon Physician, Royal Infirmary, Manchester. Cloth. 8vo. Pp. 259. Oxford University Press, New York, 1912.

A practical book dealing in a popular way with the general matters concerning the care of children. The volume possesses decided value for mothers and nurses.

CARE OF THE SKIN IN HEALTH. By W. Allan Jamieson, M.D., F.R.C.P.E., Consulting Physician for Skin Diseases, Edinburgh Royal Infirmary, etc. 8vo. Cloth. Pp. 109. Oxford University Press, New York, 1912.

A book of four chapters on the structure and care of the skin. The work is in the popular style, and contains much information of a highly instructive nature. This little book is designed to correct the ignorance which prevails with the people generally concerning the first principles of daily care of the skin.

COLLECTED PAPERS BY THE STAFF OF ST. MARY'S HOSPITAL (Mayo Clinics) for 1911. Octavo of 603 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$5.50 net.

This third volume of the St. Mary's Collected Papers comes finding a place already prepared for it in the archives of modern medicine, by reason of the value of the preceding volumes.

The marvelous work being carried on at Rochester would fall short of completeness were not the proceedings chronicled in such form as to be accessible to the profession at large.

CASE HISTORIES IN MEDICINE. Illustrating the diagnosis, prognosis, and treatment of disease. By Richard C. Cabot, M.D., Asst. Professor of Clinical Medicine, Harvard Medical School, second edition, revised and enlarged. 8vo Cloth. pp. 295. Boston, W. M. Leonard.

The book is in Dr. Cabot's inimicable style, and the second edition is intended primarily for the practitioner, whereas the first was planned more especially for the requirements of the student. More detail is given to diagnosis and treatment in this edition. The last chapter contains notes on drug therapy.

INFANT FEEDING. By Clifford G. Grulee, A.M., M.D., Assistant Professor of Pediatrics at Rush Medical College, Attending Pediatrician to Cook County Hospital. Octavo of 295 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$3 net.

This volume has as its object the presentation of the scientific processes underlying infant feeding in a way that will be comprehensible to the practicing physician who has not given the subject special study.

The doctrine of the book is continental rather than American. The author is sincere in the stand he takes, and feels that his opinions are justified by his personal observations.

THE COLLECTED WORKS OF CHRISTIAN FENGER, M.D. Edited by Ludvig Hektoen, M.D., Professor of Pathology at Rush Medical College. Two octavo volumes averaging 525 pages each, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Per set; Cloth, \$15 net; Half Morocco, \$18 net.

This collection of papers comprises practically all that the famous pathologist and teacher wrote. The collection possesses a value both practical and historical. The forty years which they cover is one of the most important periods in the history of medicine, and aside from the practical worth of the contributions one may see in them the record of the progress of the last quarter of a century.

TEXT-BOOK OF PRACTICAL THERAPEUTICS; With Special Reference to the Application of Remedial Measures to Disease, and Their Employment upon a Rational Basis. By H. A. Hare, M.D., B.Sc., etc., etc. 8vo Cloth. pp. 984. 14th edition. Cloth \$4.00 net. Philadelphia and New York. Lea & Febiger, 1912.

A new edition of a work of such sterling value as Dr. Hare's Therapeutics calls for congratulation. Speaking in terms of appraisal, Dr. Hare's work has long been one of the largest in modern medical literature. This 14th edition keeps up to the high standard set and maintained by previous editions. It has been thor-

oughly revised and contains added chapters on tuberculin, salvarsan, and other recently adopted therapeutic agencies.

AN ESSAY ON HASHEESH. Including Observations and Experiments. By Victor Robinson, contributing editor *Medical Review of Reviews*, etc. Medical Review of Reviews, New York. Pp. 83. 1912. 50 cents.

The first part of this monograph, which is devoted to the history of cannabis indica, is charmingly written and full of instructions, but the rest of the essay, which essays to detail the effect of the drug on the author and certain of his venturesome friends, is utterly puerile.

Veritas in vino! We trust, for the sake of these gentlemen, that the reverse is true of hasheesh. Their experiences remind us more than anything else of the experiences of a boy with his first cigar, and are about as entertaining as they are—to the boy.

ARTERIOSCLEROSIS; ETIOLOGY, PATHOLOGY, DIAGNOSIS, PROGNOSIS, PROPHYLAXIS AND TREATMENT. With a special chapter on blood-pressure. By Louis M. Warfield, A.B., M.D., Assistant Superintendent and Resident Physician to Milwaukee County Hospital, etc. With an introduction by W. S. Thayer, M.D., Professor of Clinical Medicine, Johns Hopkins University. Cloth. 8vo. Pp. 220. Second Edition. Ill. St. Louis: C. V. Mosby Co., 1912. \$2.50.

The second edition of this able consideration of a disease which is now recognized as being one of the common menaces of life, has been carefully revised and new chapters added on examination of the heart and arteries and the relation of arteriosclerosis to life insurance. The chapter on arteriosclerosis and life insurance is an innovation and is distinctly valuable.

DIGESTION AND METABOLISM. The Physiologic and Pathologic Chemistry of Nutrition, for Physicians and Students. By Alonzo Englebert Taylor, M.D., Rush Professor of Physiologic Chemistry, University of Pennsylvania. 8vo. Cloth. Pp. 560. Lea & Febiger, Philadelphia and New York, 1912.

The author's lectures on digestion and metabolism have been revised and are here presented in book form. The subjects are considered in popular fashion from the dynamic rather than the analytic standpoint. The object of the author is to give his readers a practical knowledge of body chemistry and to interpret in a practical way the very extensive literature on the subjects in hand.

It is unfortunate that the author found it necessary to omit the references to the literature.

LABORATORY METHODS. With Special Reference to the Needs of the General Practitioner. By B. G. R. Williams, M.D., assisted by E. G. C. Williams, M.D., formerly pathologist of Northern Michigan Hospital for the Insane. With introduction by V. C. Vaughan, M.D., LL.D. Illustrated. 8vo. Cloth. Pp. 204. C. V. Mosby Co., St. Louis, 1912.

In this book the authors give a simplification of technique in laboratory procedure and the data by which an efficient laboratory can be equipped at little cost. It is an extremely timely work, and will be especially appreciated by the country practitioner or the physician practicing in the small town remote from a laboratory. The country practitioner is often called on to have examinations made which require the aid of the laboratory, and the delay and expense necessitated by his having to send his material to distant points is a feature in his practice that he will gladly see eliminated. The volume shows how this is possible, and how adequately the costly instruments can be dispensed with through the employment of homely means which are just as efficient as the expensive instruments. The important tests and reactions are given in concise form.

The book is excellently gotten up and the typography is first class.

REPORT FROM THE PATHOLOGICAL DEPARTMENT AND THE DEPARTMENT OF CLINICAL PSYCHIATRY, CENTRAL INDIANA HOSPITAL FOR THE INSANE, 1909-11. Vol. IV. 8vo. Cloth. Pp. 344. Indianapolis: W. B. Burford, 1912.

The studies conducted at the Central Indiana Hospital for the Insane are of great importance, and many other institutions of the kind would do well to follow the example of this hospital. If there is any morbid condition that would seem to warrant study over another, it is mental derangement.

The prevention and cure of the insanities will become a much certainer thing when the maladies are made the subject of special study generally in the hospitals. The work at the Indiana institution has been going on for some years and deserves the highest commendation.

X-RAY DIAGNOSIS AND TREATMENT. A Text-Book for General Practitioners and Students. By W. J. Bythell, B.A. Cantab., M.D. Viet. Hon. Physician to the Ancoats Hospital, Manchester, etc., etc., and A. E. Barclay, M.D., Cantab., M.R.C.S., L.R.C.P. Medical officer to the Electrical and X-Ray Departments, Manchester Royal Infirmary, etc., etc. Cloth 8vo. pp. 147. Oxford University Press, New York, 1912.

A very useful work for the practitioner who requires information of a practical nature on *x-ray* treatment. The volume is not intended for the *x-ray* specialist, but devotes itself to diagnosis and treatment with *x-ray*. The *x-ray* has come to occupy so important a place in general practice, that a book of this kind possesses great practical value, and should be the property of every physician.

RECENT METHODS IN THE DIAGNOSIS AND TREATMENT OF SYPHILIS. By Carl H. Browning, M.D., Lecturer in Clinical Pathology, University of Glasgow, and Ivy McKenzie, M.B., Director Western Asylums' Research Institute, Glasgow, in collaboration with John Cruickshank, M.B., Charles Chislett, M.B., Walter Gilmore, M.B., Hugh Morton, M.B., with an introduction by Robert Muir, M.A., M.D., F.R.H., professor of pathology, University of Glasgow. Octavo of 303 pages. Published by Lea & Febiger, New York and Philadelphia, first edition, 1912.

The book is divided into two parts. The first part takes up the diagnosis of syphilis by the serum reaction of Wassermann, Neisser and Bruck. The second part considers the treatment of syphilis with salvarsan (606). These are preceded by an extremely interesting historical introduction by Robert Muir. The text proper is made up for a considerable part from the researches of the authors, some of which have apparently not been published before. They have reviewed the literature very extensively and very few if any facts of theoretical importance have been omitted. They go into the theory underlying the Wassermann reaction and the preparation of materials used; its benefits and fallacies are given in detail and are most commendable. Of extreme interest is a brief chapter on complement deviation in experimental trypanosomiasis. The clinical application of the syphilis reaction is extensively discussed, especially in reference to its bearing on therapeutics.

In regard to the treatment of syphilis, the essence of the recent literature is given, in connection with the experience of the authors. The experimental treatment with salvarsan in animals is briefly referred to. One chapter is devoted to the chemistry, some of the methods of administration and the effects of salvarsan. A general conclusion gives the authors' views on the treatment of syphilis and reads in part: "It has been shown that salvarsan possesses great advantages over mercury: (1) salvarsan acts with great rapidity and a single dose is at least as efficient as a prolonged course of mercury, and (2) salvarsan is extremely active in cases which resist mercury, or which are susceptible to the toxic effects of mercury. . . . The serum test

should be carried out three or four months after treatment has ceased, and should be repeated at intervals of not more than six months. . . . As the serum reaction is of such vital importance in the diagnosis, treatment and prognosis of syphilis, it cannot be too strongly urged that the so-called simplifications of the original test are inadvisable. The greatest accuracy can only be attained by adopting the more delicate methods. . . ." An appendix on the composition of salvarsan and a very extensive index, complete the volume.

An immense amount of material is condensed within its pages and the book will prove to be unquestionably a mine of information to the practitioner.

A COLLECTION OF PAPERS (Published Previously to 1909). By William J. Mayo, M.D., and Charles H. Mayo, M.D. Two octavo volumes, averaging 550 pages each, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Per set: Cloth, \$10 net.

The several volumes of these papers—1905-1910—which have appeared occupy a place of unique value in contemporary medical literature, and we are exceedingly glad to see this collection of papers which is as complete a file of the writings of the Drs. Mayo, from the time of their graduation to 1909, as it was possible to compile.

Some of the papers appearing herein bear a date later than 1905, as they were not contained in the first volume of collected papers.

A medical library that does not contain the Mayo papers is an incomplete collection.

PHARMACOLOGY AND THERAPEUTICS FOR STUDENTS AND PRACTITIONERS OF MEDICINE. By Horatio C. Wood, Jr., M.D., Professor of Pharmacology and Therapeutics in the Medico-Chirurgical College, etc. 8vo. Cloth. Pp. 429. J. B. Lippincott Co., Philadelphia, 1912. \$4.

The present work reflects great credit on its author and is one of the few really meritorious works on pharmacology that have appeared for long. It is planned with a view to accommodating the latest methods of teaching the subject, and the author conjoins materia medica and pharmacodynamics, realizing that pharmacology is valuable to the student of medicine only when it is the basis for practical therapeutics; the mutual interdependence between the scientific facts and their clinical application is given special emphasis. Each chapter is complete in itself and should be considered as a whole.

Many volumes of real merit have been practically crippled by unsane indices, and the care which has been bestowed on this feature of the work before us will be greatly appreciated by those who use the book.

A TEXT-BOOK OF PATHOLOGY. For Students of Medicine. By J. George Adami, M.A., M.D., LL.D., F.R.S., Professor of Pathology in McGill University, Montreal; and John McCrae, M.D., M.R.C.P. (London). Lecturer in Pathology and Clinical Medicine in McGill University, formerly Professor of Pathology in the University of Vermont. In one octavo volume of 759 pages, with 304 engravings and 11 colored plates. Cloth, \$5 net. Lea & Febiger, Philadelphia and New York, 1912.

This volume is a most important achievement. It is much more practical than the authors' "Principles of Pathology," a work which is known the world over, and it will not surprise us if the present book in time entirely supersedes the two-volume work. For purposes of reference this work is vastly more satisfactory than the former, and presents the subject in a more concise and trenchant manner; it is at the same time amply sufficient.

While this book is in no sense an abridgement of the former two-volume work, yet it seems to us probable that had this work been published instead of the former, the first would have been unnecessary.

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ORIGINAL ARTICLES

PSYCHOTHERAPY *

GEORGE W. GOINS, M.D.
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I shall discuss this subject from the following phases: 1. What is psychotherapy? 2. The history and development of psychotherapy. 3. The limitations of psychotherapy compared with material therapy. 4. The relation of psychotherapy to the success of charlatans and the bastard cults in medicine. 5. The ethical application of psychotherapy.

It is needless to say that in the time allotted to a discussion of this character one can do no more than mention briefly a few of the more prominent points for consideration. For those who may desire to investigate the subject more thoroughly and in detail I would refer to the following authors: Dubois, Bernheim, Forel, Freud, Jung, Richard C. Cabot, Boris Sidis, Morton Prince, S. Weir Mitchell and L. F. Barker.

What is psychotherapy? It is a high sounding term, which, reduced to good English, means "mind cure." It is the attempt to help the sick through mental, moral or spiritual methods.¹ It is teaching the patient correct mental hygiene, so to speak. It is to save the patient from morbid introspection; from false interpretation of his own sensations. It is the cultivation of serenity of mind, fortitude, patience and courage.

THE HISTORY AND DEVELOPMENT OF PSYCHOTHERAPY

The elements of psychotherapy have existed co-existent with man, but it has remained for these later years to force medical men to a practical, scientific investigation and adoption of them.

*Read in the Medical Section of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

1. Cabot, R. C.: American Type of Psychotherapy, Center Publishing Company, New York.

Psychotherapy has been practiced unconsciously, in the main, by the priestcrafts of ancient India, Egypt and Babylonia; by the prophets of Israel; by the apostles of Jerusalem; by the necromancers, witches and soothsayers of Rome; by the North American Indian medicine man, and by the mother who clasps her crying babe to her bosom and kisses its bruises. It is essential to the Catholic confessional. It is the capital stock of all charlatans and bastard cults in medicine. It is not a small asset to every successful ethical practitioner; it is often his pleasing personality, sympathy and persuasive advice that does the patient good.

The attention of scientific medicine was directed toward psychotherapy by the successes of Mesmer and Braid, during the latter part of the eighteenth century and the beginning of the nineteenth century. These gentlemen demonstrated that they could cure many nervous affections by hypnotism which baffled the regular profession. Then followed Charcot who gave it scientific standing and dignity; then the school of Nancy took it up and produced a Bernheim; in Paris, Janet; in Vienna, Freud; in Zurich, Jung; in Berne, Dubois, who has written, perhaps, what may be called an epoch-making book² on the subject; in this country Weir Mitchell, Morton Prince, Boris Sidis, Luellys F. Barker and Richard C. Cabot may be mentioned among many others who have been pioneers in introducing it to the profession.

THE LIMITATIONS OF PSYCHOTHERAPY AS COMPARED WITH MATERIAL THERAPY

He who would confine his therapy to mind cure will be almost, if not quite, as successful as the exclusively material therapist, because it is estimated that approximately 50 per cent. of all patients calling on the general practitioner are psychoneurotics, whose maladies are amenable to mental rather than material influence. Our confidence in much of material therapy is waning

2. Dubois, Paul: Psychic Treatment of Nervous Disorders.

and must continue so as our observations and exact knowledge increase. Many have been the empirical and fancied virtues of various drugs—mere assumptions beyond the ken of knowledge and without the support of logic. The bulk of the U. S. Pharmacopeia speaks loudly in support of this. The edition of 1900 listed 958 distinct drugs,³ and the National Formulary listed 437 mixtures³ of these drugs as official; and add to the preceding a list of some 30,000 proprietary preparations⁴ and you have the larger part of the physician's drug armamentarium. How much of this is chimerical we do not know. The fear of losing something valuable admonishes us to keep it all, as do commercial interests who exploit the profession with many superfluous panaceas.

During a recent four-year period in the Massachusetts General Hospital, 50,000 prescriptions⁵ were used by the internists representing about 100 drugs. If a hundred or so of drugs are sufficient, and as successful in combating disease as the whole Pharmacopeia, why not delete it? Why should we carry so much traditional ballast? We have empirically exercised too much faith in a large variety of drugs.

Barker⁶ says: "Psychotherapy has through the ages been instinctively practiced, but only comparatively recently has it begun to be consciously and systematically used. Suggestion has always been one of the most powerful remedial agents." White⁷ says: "It must not be forgotten that the vogue of a great deal of pseudomedicine, the 'patent' remedies, the half-baked pathies, the hosts of charlatans and montebanks, are thriving in a department of medicine that the legitimate practitioner has simply and plainly neglected, and they are thriving to no small extent because of that neglect. The good results that they obtain—and no one can deny that they do obtain good results sometimes—are obtained by the effect of their practices on the minds of their patients, and all of this is going on while the general practitioner refuses to busy himself with such matters as psychotherapy."

THE RELATION OF PSYCHOTHERAPY TO THE SUCCESS OF CHARLATANS AND THE BASTARD CULTS IN MEDICINE

It is applied psychotherapy that enables the charlatan and the non-medical cultist to command a following. Who has not seen or heard of well-authenticated cases in which the regular medical man failed and the charlatan succeeded? It is not logical argument to say that you disbelieve all the reports of successful treatment by the Christian scientist, the faith curist, the magnetic healer, the osteopath and the chiropractor. The percentage of cures in the neuroses will

compare favorably with the cures by the regular scientific medical man. By a process of natural selection many of these neurotics having failed to get satisfaction from the medical man, seek the charlatan and are cured. The bombastic advertisement with its air of confidence enables the charlatan to do what the medical man has failed to do, i. e., satisfy the mind of the patient; or, it may be that the osteopathic logic of the dislocated vertebrae, the contracted muscle on a nerve or blood-vessel, with a course of massage and manipulations cures. Again the Christian Scientist persuades that all pain and disease is merely an erroneous mental conception to be vanished by his logic. The point I wish to bring out is that there is a kernel of truth in all these cults, which the regular profession has been slow to recognize and appropriate. Failure to recognize this truth has allowed quacks and bastard cults to thrive.

Franz⁸ says: "It makes little difference what branch of medical practice we consider, we find that mental states must be taken into account by the practitioner, though he may not realize the importance of the psychologic aspect of his practice." The non-medical healers knowing little or nothing of drugs, naturally become prejudiced against them just as the medical man has been prejudiced against the truth on which the non-medical healer has builded. The prescribing of drugs has been largely an unconscious mental therapy; the drugs having the virtues fancied by the prescriber and suggested to the patient; this conclusion is supported by the effects of placebos and the many obsolete remedies.

THE ETHICAL APPLICATION OF PSYCHOTHERAPY

I speak of the ethical application of psychotherapy as that applied by trained medical men, and in contra-distinction to its non-medical application. To practice psychotherapy intelligently one must be able to distinguish between the neuroses and those diseases which have a demonstrable pathologic lesion underlying them. Dubois² says: "Psychic therapy is indicated in all the affections in which one recognizes the influence of mental representation of ideas, and they are legion. It is a great mistake to believe that psychic therapy is applicable only to the psychoneuroses, that it is an aid to the specialist in neurology and alienist alone, and that the practitioner can pass it by. Moral influence nearly always comes in, and ever since medicine existed patients and physicians have been able to prove it. It is not unusual to see the patient's condition improve immediately after the visit of the physician, because of the favorable assurances he has expressed or the sympathy he shows his patient. This psychotherapy has existed through all time. To know how to apply it has always been the highest quality of those practitioners

3. Thrush, M. Clayton: Jour. Am. Med. Assn., Feb. 5, 1910.

4. The Pharmacopeia and the Physician.

5. Cabot, R. C.: Case Histories in Medicine, p. 278.

6. Barker, L. F.: Jour. Am. Med. Assn., Aug. 1, 1908.

7. White, W. A.: Jour. Am. Med. Assn., May 11, 1912.

8. Franz, Shepherd Ivory: Jour. Am. Med. Assn., March 30, 1912.

who are also physicians of the soul, and who have known how to acquire a confiding and appreciative clientele. They are perhaps more numerous in the country and small towns than in the great centers, where competition develops commercialism and tends to make the physician forget his humanitarian calling. In organic diseases therapeutic intervention may act materially on the lesion or on the symptoms, for man does not suffer merely as an animal. He does not feel only the crude painful sensation; he exasperates then by his fears and his pessimistic reflections. Often what he calls his soul is more diseased than his body."

Much disease is due to false interpretations of one's own sensations, and another quota of disease is due to the physician's erroneous conclusion and expressed diagnosis based on inadequate information. To illustrate: Who has not seen a score or more of persons suffering from an imaginary "heart disease" due to a distended stomach, or due to the assertion of the physician: "you have a weak heart"? Disease in man differs from that in the lower animals; in the lower animal it is expressed in pain and altered physiologic function only, while in man it is expressed in pain and altered physiologic function plus his fear; his false conclusions. There are no neuroses in the lower animals because they make no attempt to interpret their sensations except as pain or pleasure, comfort or discomfort. There is no fear; there is nothing imagined.

The application of psychotherapy cannot be expressed in a simple formula. Correct knowledge and tact are essential. Some say apply it in the hypnotic state; others say apply it in the waking state by suggestion. Dubois' method is what he calls persuasion and moral orthopedia; it consists in being perfectly frank with the patient; telling him the whole story of his trouble; giving him the reasons why he has mis-conceived it. In other words, persuading him to see it as you believe it to be.

The psycho-analytic method⁹ of Freud and Jung is more appropriate for the psychiatrist in diagnosing and treating pure psychoses—mental obsessions. Freud and Jung have found that these psychoses are, in the main, sexogenetic. The method consists in having the patient relate in minute detail the story of his whole life in which there will be certain gaps; the patient is urged to be frank in every detail and to relate the apparently unimportant which usually leads to some experience in early life, it may be, that has been forgotten which forms the basis for the psychosis. This is very close kin to the confessional.

The primary object of psychotherapy is to change the patient's mental attitude toward himself. Among the early methods were those of ascribing healing virtues to substances, places,

objects and certain verbal formulæ and maneuvers by the persons who essayed to heal the sick. e. g., the "madstone" for the cure of rabies and the bite of poisonous serpents; the pool of Siloam; the anointing with oil and the laying on of hands with or without prayer by the early churchmen; the pilgrimages to Lourdes and the Temples of Isis; the touch of the King to cure King's Evil; the verbal formulæ of soothsayers. This was curing by deception. The trend of the present-day psychotherapy among trained medical men is not to deceive the patient, but a logical story is told the patient true to the mind of the physician which convinces the patient that his idea is wrong and the patient is cured, or on the high road to cure. It may be necessary to teach the patient correct habits, a philosophy or a religion, as well as the proper exercise of the affections and the inculcation of pleasure in work. Rest, isolation, overfeeding, hydrotherapy and electricity are adjuvants of no small importance as demonstrated by Weir Mitchell.

THE DIAGNOSIS OF NEPHRITIS *

WILLIAM ENGELBACH, M.D.

ST. LOUIS

A few of the common misconceptions concerning the diagnosis of nephritis have been chosen as the subject of this paper. It will consist of general conclusions drawn from a comparative and analytical study of fifty cases of nephritis in which the urinary findings, functional kidney tests, general physical and in some the anatomic-pathologic findings are taken as a basis. It will be limited to (1) the misinterpretations of urine analysis and (2) common lesions in other organs for which nephritis is usually mistaken.

The prevailing law that urinary findings indicate more or less definite structural change or abnormal function of the kidney, though disapproved, is yet commonly accepted. For instance, certain so-called typical urinary findings are alone considered sufficient on which to diagnose certain types of nephritis. Urine free from abnormal elements is thought to exclude renal diseases. Marked urinary findings, such as large amount of albumin and casts are considered positive evidence of more or less renal insufficiency. That these estimations based on urinary findings of renal change and function do not hold, has become very well established. While it is well known that the acute and chronic diffuse types of nephritis do present marked chemical and morphologic elements in the urine which lead to their early recognition, it is not so generally known that the glomerulonephritis, one of the most serious forms of parenchymatous types, is not accom-

* Read in the Medical Section of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

9. Onuf, B.: Jour. Am. Med. Assn., June 6, 1908.

panied by albuminuria, which finding is usually thought necessary for the parenchymatous type of nephritis. While it is also true that there are definite urinary pictures considered classical for the contracted, interstitial or arteriosclerotic kidneys, the important fact remains that there are a high percentage of these cases, estimated as high as 50 per cent. from the author's personal observations, which do not present, during a long time of their course, any marked abnormal findings in repeated singles or twenty-four-hour analyses of the urine. In the first group, parenchymatous nephritis, in which marked urinary findings would seem to indicate considerable lesion and definite insufficiency of the kidney, special tests have proved that the function of the kidneys is not really so much diminished, whereas in the other type of cases of contracted kidneys in which the urine at least for a considerable time appears to be practically normal, these same tests indicate that there is usually a very marked decrease in the eliminating power of these organs.

The common clinical mistakes that are made in the diagnosis of nephritis are those of taking some one of the many secondary changes of this disease in other organs as the primary lesion. Only a few of these will be considered and they will be the secondary changes in the cardiovascular respiratory and gastro-intestinal tract. Probably the most common mistakes is the diagnosis of a mitral regurgitation for that of nephritis. This is due to the relative mitral insufficiency which is so frequently present with the parenchymatous type of nephritis. In this type the left ventricle is dilated producing the typical clinical findings of mitral insufficiency (systolic murmur changes in the size and form of heart, accentuated secondary pulmonic tone, etc.). The differential diagnosis between passive congestion of the kidney secondary to a true mitral disease must also be considered.

In those cases in which the diffuse nephritis is rapidly changing into a contracted kidney, as is shown by return to normal of the urinary findings, there is sometimes no other marked objective evidence present than those of a simple anatomic mitral insufficiency. Pericarditis frequently present in the parenchymatous types as a secondary condition is also taken as a primary infection of the pericardium instead of being given its proper place as a sign of a kidney lesion. Another very frequent mistake is that of diagnosing primary myocarditis for cardiac muscular insufficiency frequently present in the cardionephritic, secondary contracted and interstitial types. Many of the so-called cardiac asthmas are really true signs of this type of kidney lesion. Among the arterial lesions, one which has at least its most important element, as that of a kidney lesion, is the diffuse type of arteriosclerosis. On account of the frequent negative urinary findings present in the con-

tracted kidneys, this important etiologic element is not recognized.

Among the common respiratory diseases, asthma, commonly called bronchial asthma on account of the negative urinary findings in the contracted group of nephritides, is very frequently wrongly diagnosed and consequently improperly treated. At least 30 to 40 per cent. of the so-called bronchial or idiopathic asthmas without an eosinophilia from the author's experience are merely symptoms of contracted kidneys. This large percentage does not include those cases of nephritic asthma with definite urinary findings. This series of cases personally observed reacted very satisfactorily to nephritic treatment, or were proved by post-mortem or the later development of urinary findings to be definite cases of contracted types of nephritis. A great majority of these cases gave a history of having an onset of severe paroxysmal attacks of nocturnal dyspnea occurring after a number of hours of quiet sleep. This one symptom is alone very suggestive of contracted kidney. The opposite type of dyspnea, that following exertion, is a rather late symptom in the secondary muscular insufficiency of cardiac asthma due to the contracted kidneys. In a considerable number of cases of chronic bronchitis occurring in the aged having practically normal urinary findings, the cough and expectoration reacted to nephritic treatment after the ordinary bronchitis treatment had failed.

The gastro-intestinal symptoms associated with the chronic contracted kidneys frequently simulate very closely those of carcinoma. In those cases having nausea, vomiting and an anacid stomach contents, rapid loss of weight and marked anemia, carcinoma is frequently suspected, particularly if there are no marked urinary findings to direct attention toward the kidneys. In many of the more moderate cases having only anorexia, nausea, etc., the stomach symptoms are treated for a considerable time for chronic gastritis. In some of the diffuse and parenchymatous types or this type shading off into a secondary contracted kidney, there has occurred marked dilatation of the left ventricle, with consequent congestion of the lungs and dilatation of the right ventricle, producing a relative insufficiency of the tricuspid valve with its enlarged tender pulsating liver. This enlarged tender liver presents an abdominal tumor, which is frequently the finding which attracts the most attention and seems to be the one which is most difficult to explain. That this is not an unusual mistake is illustrated by three cases which the author has seen during the last six months in which the diagnosis in such a case was made in one carcinoma of the stomach, in another, primary tumor of the liver and in the other, an abdominal tumor. In all these cases the urinary findings, although very marked, were considered incidental and not thought sufficient to account for the abdominal mass.

The most important points in the diagnosis of renal disease is the proper consideration of the various types of nephritis with the knowledge of the value of the urine analysis, taken in combination with the general physical findings and functional tests of the kidney. For instance, the urine analysis should not be taken alone as a criterion for either the pathologic condition or function of the kidneys. In the parenchymatous types of nephritis it is of considerable aid as a diagnostic factor. Half of the cases of the contracted types of nephritis have typical urinary findings. The other half, for at least a considerable time of their course, have practically normal urine. It is in the latter cases that the changes in the cardiovascular system, hypertrophy of the left ventricle, mitral regurgitation, accentuate second aortic tone, pericarditis, etc., without other definite etiologic or anatomic factors to explain the same, should always lead to a further investigation concerning a kidney lesion. Systolic blood-pressure above 160 mg. is with very few exceptions indicative of kidney lesion even in the presence of normal urinary findings. Not all kidney lesions, however, have a high blood-pressure. Albuminuric retinitis, though valuable as a positive finding, has been present in only comparatively few cases, according to the author's observations, in which the diagnosis could not have been easily made by other means. Findings in the other systems as the gastro-intestinal, respiratory, nervous, such as vertigo, headache and any other symptom, which are not definitely explained by local changes or which do not react to local treatment should always lead to the suspicion of nephritis.

In those cases of contracted kidneys in which there are no definite urinary or physical findings, the phenolsulphonephthalein functional test introduced by Rowntree and Geraghty, has proved of great aid to diagnosis. This test is also of a great deal of value in prognosis of known kidney lesions, and it is of special value when used in combination with urethral catheterization in determining the diagnosis of kidney from abdominal tumors and as an aid to determining the function of each kidney separately.

CONCLUSIONS

1. Urine analysis alone is no criterion for the lesion or function of the kidney.
2. In many cases of nephritis having marked urinary findings the function of the kidney is not greatly diminished.
3. In probably 50 per cent. of the cases of secondary contracted or interstitial kidneys in which the urine may be practically normal, there is a marked decrease of renal insufficiency.
4. A diagnosis of nephritis or exclusion of such a diagnosis should never be made on the urinary findings alone.

5. Secondary changes in other organs due to nephritis are frequently diagnosed and treated as the primary lesion.

6. Complete general and physical examination, functional tests of the kidney, the course and the reaction to treatment should all be given consideration in the diagnosis of this disease.

Humboldt Building.

TRAINING OF NURSES FOR SERVICE IN STATE HOSPITALS FOR THE INSANE *

M. A. BLISS, M.D.

ST. LOUIS

It has not been customary in the hospitals for the insane, in this country, to train the attendants and nurses as trained nurses are in general hospitals.

Inasmuch as the patients of an insane hospital are not only mentally sick, but frequently bodily sick as well, it seems strange that a more general demand has not created everywhere training schools for attendants.

As a class attendants are recruited from the walks of life in which education and compensation are low. By years of service they gradually absorb a knowledge of how the insane are managed, in a practical way, and it goes without saying that a considerable number become expert in their calling and render very efficient service. In some of the more advanced hospitals, instruction is now given by the staff, supplemented by lectures by the visiting staff. It has been plain to superintendents for many years that much was to be desired in the common run of attendants, many of whom wandered from one institution to another—discharged for cruelty or inefficiency or often for intoxication—or possessed of a wander lust which impelled them to wander from hospital to hospital, clear across the continent.

It is becoming evident everywhere that we must begin a more careful selection of candidates and instruct them systematically in their duties. The pay, which includes board and laundry, is not sufficient at the present average scale to attract the people we would desire. But it is my conviction that much would be added to the attractiveness of these positions if there could be a graded service where compensation increased with competency, and with tenure secure during good behavior, with the added advantage of thorough instruction in the special nursing of the mentally sick.

* Read in the Medical Section of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

It seems not practicable to establish a course patterned after that for trained nurses, but enough special training can be readily given which would make attendants good nurses for the insane in private practice. Dr. Weir Mitchell has always contended that it was better not to send cases to hospitals unless dangerous to others or suicidal. However, it becomes necessary to do so just because we cannot secure adequate nursing in private homes.

The instruction and lecture hours should come out of the time devoted to regular duty. The hours should be so arranged that the work of the halls would not be neglected. Instruction should be given on the halls in the actual management of the different types of insanity.

At a meeting of Missouri superintendents in January of this year, the employment of a special instructor was recommended, to go from one hospital to another to give special demonstrations. A recognition of the motives governing conduct in the insane should be taught. It broadens the view of the attendant and prevents much misunderstanding and mistreatment. While it is neither desirable or necessary to teach psychiatry, it is well for the attendants to be taught to recognize the main types and to be familiar with the accidents as well as the regular features of the psychoses. Epileptic ill humor and befogged states, parietic seizures, manic outbreaks and fits from dementia præcox, are all regular features of daily work and should be met with understanding and efficiency.

Attendants quickly reflect the spirit of discipline in any hospital, and where large numbers are to be managed it would seem necessary to preserve a routine order applicable to all. It is so easy to get careless unless there is some one to make us do the best we can. If justice is always shown, and indulgence rare and discriminating, attendants soon learn that they are expected to attend strictly to duty. It becomes a habit and is followed as a matter of course.

A course for attendants might be started by a lecture each week on the general outlines of insanities and the special features of the larger groups forming the population. This would gradually lead to some comprehension of the different ways in which people are mentally sick and what is to be expected from each variety. Emergencies for actual handling cannot be created, but they can be described in a clear way so that attendants need not be wholly unprepared.

This instruction would lead to some comprehension of the causes of insanity, and of its course in the varieties and of what ameliorates or cures it. It would lead, also, to their learning how to occupy patients in a way to conserve their best interest. Some patients are required to work

when not in condition to do so and others are allowed to remain idle when they should be active. While this is largely a matter for the physician to determine, in actual conduct of hospitals it is largely left to the attendants.

An important part of attendants' instruction should consist in teaching them ways and furnishing them means to entertain and employ time of patients, for there is a deadly degeneration in inactivity and unoccupied time. And attendants should be made fully aware that the patient's welfare is first and the conduct of such household affairs in which they may help always secondary.

Both male and female attendants learn to attain excellent results for their wards if encouraged by instruction and helped with the necessary materials.

Attendants should, in rotation, serve in the hospital wards of the institution and be taught under the direction of the physician and head nurse how to give baths serving the various purposes for which they are applied in mental disease. This would include precautions against dangers of all kinds and understanding of temperatures and reactions. The taking of temperatures, respiration and pulse-rate, the use of hot-water and ice-bags, the giving of enemas, the use of the catheter, the use of hot and cold packs, the description and first-aid treatment of wounds, with lessons on asepsis. No one can anticipate with certainty what an insane person may do. They inflict wounds, fractures and dislocations on each other and occasionally on attendants, so that instruction to meet such emergencies should be carefully given.

Cleanliness, surgical and ordinary, must not only be taught, but enforced by constant watchfulness. There is much to be conveyed about methods of housekeeping, the making of beds, securing proper ventilation and temperatures of rooms, wards and halls.

I have barely outlined what may be considered essential things and our course for attendants has already reached proportions which would consume a number of lecture hours. Amplification, of course, is constantly had in the actual performance of duty.

The State Board of Administration of Illinois has prepared a scheme of lectures and demonstrations covering elementary anatomy, physiology and hygiene, and the various more direct studies pursued in the immediate daily care of the insane. It forms a pattern which, with some modifications, we might readily follow in Missouri.

There seems no doubt that we can create a much better trained and higher class of nurses and attendants by this means and prepare many for the work in private practice.

Humboldt Building.

CLINICAL METHODS: THE EYE *

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It is an anomaly in the education, training or pursuit of specialism, to give insufficient attention to the mutual interdependence of the various organs and tissues of the body; on the other hand, it is unwise for the general practitioner to ignore entirely the methods of diagnosis in eye disease; as an examination of the eye may yield valuable indications of commencing organic disease. From a practical standpoint, we must be constantly on our guard unless we enter a hopeless rut. Herbert Spencer reminds us that human beings are at the mercy of their associated ideas, and it lies in our power to encourage particular associations and oppose the possible development of fixed ideas. Many of the errors which have been committed in medicine could have been avoided with a more logical method of reasoning.

We have learned by experience that we hardly ever deal with simple relationships; a great stumbling block to progress at the present time is the feeling that we know the cause and essential nature of pathologic conditions. There are few problems completely solved; Ducleaux says that science advances because it is never sure of anything.

In a symposium on reflex disturbances, in New York recently, Dr. Robert T. Morris said:

I recently operated upon a patient who had suffered intensely from trigeminal neuralgia, and who had been given alcohol injections by a most competent surgeon interested in that subject, but who had not examined her pelvis at all. So intense was her suffering that at the time of the last alcohol injection she prepared a fatal dose of morphin in a glass of water to be taken just before her anesthesia. She wished to commit suicide but, to avoid disgrace to the family, intended having it appear that she had died from the influence of the anesthesia. The reason why she did not take the dose was because at the last moment the anesthetist refused to allow her the glass of water. When she came under my care a little later, and a large ovarian cyst was removed her neuralgia disappeared promptly, excepting for an occasional twinge of the supraorbital nerve, at times when the barometer is low. In this case the ovarian cyst was the precipitating factor in a patient no doubt predisposed to trigeminal neuralgia. In another case, a somewhat illiterate old lady with a competence allowing her to consult good authorities, informed me that she had suffered terribly from "neurology," as she put it, and I found her statement quite true at its literal value.

An oculist says, even a single case in which definite symptoms are relieved by eye-glasses and recur when they are left off, would be entitled to some attention if we could more definitely exclude the therapeutic influence of suggestion. This element should never be forgotten, particularly

in the large class of neurasthenics and hysterics of whom a great authority has said, "if they think themselves well they are well." Such patients, who have been in a state of depression and despondency, have explained to them a novel theory, which not only accounts for their symptoms, but offers a definite plan of relief, and, if they have been at the same time subjected to the mental and physical effects of cycloplegia and a routine of impressive and mysterious instruments, suggestive therapeutics of the most powerful kind is being used. In no other way can we account for the occasional happy effects of glasses which, through some blunder, really increase the strain they were intended to lessen. I think we are justified in considering it as a perfectly legitimate agent so long as it is not made the excuse for careless or defective work, particularly because suggestion of this sort is renewed every time the patient puts on or takes off his glasses.

The delicate structure and function of the eye permits by careful external or internal observation of it, that there is some serious pathologic change going on in a distant part of the body.

The ophthalmoscope in cardiovascular lesions helps us to determine early signs of angiosclerotic changes: the corkscrew appearance of certain arterial twigs, especially those skirting the macula, the flattening of a vein in contact with an artery, and a peculiar congestion of the disk, also later changes, such as lesions of the arterial wall, alternate contraction and dilatation of the veins, indentations of the veins by stiffened arteries, and still later hemorrhagic extravasations, perivasculitis, and silver-wire arteries.

Reber has recently called attention to two extraretinal signs: first sluggishness of pupillary reaction; second, abnormal recession of the near point, sometimes of unequal degree in the two eyes.

De Schweinitz believes the ophthalmoscope equal in value, if not superior to any of the well-recognized methods of detection of high arterial tension and arterial sclerosis. Although no one goes so far as to say that in the absence of ophthalmoscopic changes there must be absence of arterial degeneration, still many claim that the presence of the former local eye changes being excluded, make diagnosis positive.

The ocular signs observed in the early diagnosis of organic nervous disease are many. The presence of optic neuritis, apart from kidney disease, is strong evidence of a coarse intracranial lesion. But as a rule optic neuritis is more often falsely thought to exist than it is overlooked. To affirm its existence we must see distinct swelling of the disk, exudation or hemorrhage. Mere redness of the disk or tortuosity of the vessels must not be accepted as evidence of neuritis. Inequality of the pupils is apt to give rise to a

* Read in the Medical Section of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

suspicion of general paralysis; but it may be normal to the individual; it occurs in neurasthenia and, rarely, in intrathoracic pressure. It may occur in uremia. Diplopia, transitory or permanent, is suggestive of organic disease. A history of transitory diplopia is common in locomotor ataxia and may confirm the diagnosis. But so-called rheumatic neuritis of the sixth nerve may cause diplopia. Nystagmus, in the absence of ocular causes, is strongly suggestive of organic disease and may serve to indicate the existence of disseminated sclerosis when the other symptoms would seem to point to mere hysteria. Slight oscillations of the globe, especially on extreme voluntary deviation, may be merely due to fatigue or may be part of a general muscular tremor. The Argyll Robertson pupil is so common in locomotor ataxia and in general paralysis that it is seldom safe to make a diagnosis of either of these conditions, especially the former, in its absence, unless the other signs and symptoms are well marked. But undue weight must not be attached to its presence, even when accompanied by mental symptoms.

Continuous overuse, faulty use and fatigue of the eyes produce eye-strain and headache. The eye factor in headache is easily determined in a few days' time, not by finding an optical error, for that can always be found but proves nothing, but by the actual therapeutic results of treatment.

The biologic tests which have recently been introduced are to reveal the intimate nature of many affections of obscure origin. The Wassermann reaction for syphilis regards many ocular conditions as either syphilitic, metasyphilitic or occurring by preference in syphilitic persons. It had almost seemed that the germ is only part of the story of the essential nature of disease. Recently Noguchi has introduced a skin reaction from cultures of *Treponema pallida* called luetin, similar to tuberculin for tuberculosis.

At a meeting of the Berlin Ophthalmological Society in July, 1911, Glantz reported some statistics of the Wassermann reaction in individuals with ocular affections of non-syphilitic character and without syphilitic history. Of 239 such cases, thirty-nine gave positive findings. In the tabulated material Glantz does not discriminate between positive reactions, so that we are left to infer the nature of the malady from the relative frequency of positive and negative findings. Thus in diffuse parenchymatous keratitis, an affection practically of syphilitic origin, nearly all the cases reacted positively. The cases with negative results may have been under specific treatment. On the other hand in focal sclerokeratitis, presumably non-syphilitic, there was a positive reaction in a very small number of cases. This was also true of episcleritis and iridocyclitis. In certain affections considered broadly as entities

there was a large contingent of both positive and negative finds, the former predominating. Here belong iritis, scleritis, non-tabetic ocular palsies, affections of the chorioid with vascular implication, and optic neuritis.

Virtually positive were the tabetic eye affections, diffuse parenchymatous keratitis, retinitis proliferans, affections of the chorioid without vascular implication, and primary retinitis pigmentosa. On the other hand, inflammatory affections of the chorioid and of the retina in the form of a focus in the macula with persistent scar always gave a negative reaction.

Treatment is encouraging in syphilitic affections, but the parasyphilitic affections are beyond the reach of our therapeutics to date.

The ophthalmologist frequently is the first to discover tabes and it develops only in patients whose syphilis ran a mild course, while those who have frequent recurrences escape tabes. Signs of syphilitic iritis or perforation of the palate are practically never found in the tabetic. Fuchs says that reflex rigidity of the pupils is one of the earliest and most frequent symptoms of tabes and likewise in many cases of progressive paralysis. This symptom may precede the ataxia by ten or fifteen years. It is only exceptionally encountered in other nervous affections.

Mankind has vigorously survived its peculiar notions about disease, first the theory of demons and then of the four humors, and now we have opsonins, tuberculin and Wassermann tests, and to practice medicine requires a laboratory and team work.

We make mistakes in diagnosis frequently because either undue or inefficient importance is given to some symptom or physical sign which is present.

Bramwell says there are bad mistakes, slight mistakes, mistakes of omission and those of commission, mistakes due to incomplete, inaccurate, or erroneous observation, and mistakes due to hasty or illogical conclusion. There is a tendency to attach too much importance to some of the instrumental and other elaborate methods of diagnosis and to underestimate an all-around clinical experience and knowledge.

EPITHELIOMA OF LOWER LIP; REPORT OF A CASE

E. H. SKINNER, M.D.
KANSAS CITY, MO.

While usually advocating the routine surgical removal of epitheliomas of the lower lip, I want to report this case of labial carcinoma which underwent a surgical removal, recurred and received arsenical paste treatment without success. The case has been finally healed under the x-ray.

Mr. A. M., aged 44, American, school janitor. Referred by Dr. Lantz of Kansas City. First noticed trouble with lower lip in February, 1909. Treated with local applications for six months. In December, 1911, Dr. Lantz removed by wide incisions a wedge from the lower lip. Healing by first intention. Recurrence of growth in two months. He submitted to caustic pastes, which while removing some tissue, did not promote healing. He was then referred to me by Dr. Lantz for x-ray therapy.

There was an oval, cratered excavation upon the central area of the lower lip which involved apparently more of the skin than of the mucous margin of the lip. The edges of the area were hard and indurated with



Fig. 1.—Squamous epithelioma of lower lip before x-ray therapy.

an angry appearance. A yellowish debris surmounted the ulcerated surface which bled easily and constantly exhibited a serous discharge. There was some sharp pain and tenderness.

X-ray therapy was instituted May 1, 1911. A hole was cut in a piece of sheet lead, running six pounds to the square foot, a little larger than size of the epitheliomatous area. Parts of the face which this failed to cover were protected by twelve thicknesses of x-ray lead foil. The anode of a soft tube was focused 15 cm. from the ulcer. The x-ray dose was measured by the Holzknacht radiometer, the dose being about $\frac{1}{2}$ h. at each exposure.

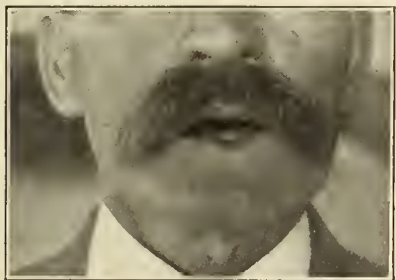


Fig. 2.—Same case as Figure 1, after x-ray therapy. Taken one year after cessation of treatment.

The response to the x-ray was evident upon the third treatment. After twelve exposures the hard indurated edges had entirely softened; the ulcer was reduced to a third of its former size; the mucous margin was entirely healed with a healthy pink glow to the mucous membrane; the edges of the skin margin were drawn and puckered. Treatments were then reduced to twice weekly. After twelve more treatments the skin was entirely closed over a soft and yielding lip. No pain has been experienced after the second treat-

ment. The patient has been seen frequently during the last two years and no recurrence or untoward symptoms have been displayed.

There are several elements of interest in this case. First, the involvement was more on the skin than on the mucous margin of the lip. Therefore, there was less lymphatic drainage than if the mucous membrane alone was involved and consequently a better chance for an early and permanent cure. Second, the x-ray produced a recession of the growth after surgical, medical and caustic measures had been employed with care and skill, but without result. Third, the protected and measured dose of the x-ray promoted a progressive improvement without any danger or discomfort to the patient. Formerly we have applied a tube of a known vacuum, for so many minutes at such and such a distance with so many milliamperes passing through the tube. The use of the Holzknacht radiometer (a modification of the Sabouraud-Moire pastille) added to the exactness of the radiotherapeutic technic. We can now measure the exact dosage of the x-ray applied and thus eliminate the dangers of former empirical x-ray treatments. Those who have used the x-ray therapeutically for many years can appreciate all the more the satisfaction of x-ray treatments applied with the amount of the x-ray accurately measured.

1019 Rialto Building.

EXPERIMENTAL WORK ON ANTIRABIC IMMUNIZATION WITH DESICCATED VIRUS *

From the Laboratory of Pathology and Bacteriology, Hospital Department.

D. L. HARRIS, M.D.

ST. LOUIS

This paper records in a brief manner an effort to lessen the usual difficulties, labor and expense necessary to the maintenance of an antirabic institute.

The treatment devised by Pasteur requires such an amount of work as to prohibit its adoption in small laboratories where the patients would be few and irregular. A great advance in the lessening of the work was made by Calmette, who employed glycerin as a preservative of the virus.

Shackell and the writer¹ reported in 1910 that "fixed virus" could be dried according to a method described by Shackell² without destruction of virulence. The method consisted in freezing the cord or brain with a mixture of salt and ice and drying this *in vacuo* at a temperature

* Read in the General Session of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

1. Jour. Infect. Dis., 1911, viii, 47.

2. Am. Jour. Physiol., 1909, xxiv, 325.

below -10°C . Continuing this work, I found that during desiccation 99 per cent. of the original infectivity was lost.

We believe that drying of cords after the method of Pasteur results in a progressive concentration of salts and other soluble substances found normally in the nervous centers, and that the death of the virus is due directly to and is proportional to this concentration. On the other hand, when cords are frozen and then desiccated, concentration of soluble toxic substances is avoided.

After many modifications of Shackell's method, I have found that the lower the temperature to which the material is reduced before desiccation, the greater will be the amount of virulence remaining after dehydration. When brains and cords are frozen with carbon dioxid snow and then dried *in vacuo* at a temperature below -10°C ., from 30 to 50 per cent. of the original infectivity is preserved. The process in detail is as follows:

One or more brains or cords are ground in a porcelain mortar, with the addition drop by drop of a small quantity of water until a thick smooth paste is formed. Carbon dioxid snow is then added in small amounts to the paste, which should be stirred thoroughly meanwhile to prevent the material from freezing in a solid mass. When thoroughly frozen it is as brittle as glass, and the whole quantity is easily reduced to a fine powder. The addition of more snow from time to time is necessary to prevent thawing.

This mixture of powdered brain and snow is transferred quickly into a cold beaker and placed in the bottom of a vacuum desiccating jar which has been half buried in a mixture of salt and ice (-18°C .). In the upper part of the jar a beaker containing concentrated H_2SO_4 rests on wire gauze in such a manner that there is a free access of air between the acid and the frozen brain. The acid is placed above, because if placed below it would solidify.

The vacuum must measure less than 2 mm. of mercury, and the jar should be gently rotated at frequent intervals to mix the absorbed water throughout the beaker of acid. A single brain or cord when so treated will be completely desiccated in from thirty-six to forty-eight hours. But until this is complete, the temperature should not rise above -10°C .

The dried material is a light powder. It is very hygroscopic and will rapidly absorb moisture from the atmosphere up to 3 per cent. It then is soft and slightly sticky and in a few hours loses all virulence. It must, therefore, be carefully preserved from all moisture.

When this dried brain is injected intracerebrally into rabbits, 1/100 of a milligram is sufficient to produce symptoms of rabies with a mini-

mum incubation period of six days. When kept dry and in an ice-box, its loss of virulence is so slow that after 190 days it is more infectious than the two-day cord of Pasteur.

Owing to this relative stability, I have been able to standardize the virus and determine its efficiency in terms of minimal lethal doses for full-grown rabbits.

This dried powder has been used for over a year in immunizing animals, and during the past six months forty-five patients have been treated in the same manner. The length of time necessary to induce immunity has been reduced from twenty days (Pasteur) to ten days for severe bites and five days for lighter injuries. Not a single untoward accident has occurred, and the patients thus treated are to-day apparently out of all danger.

Experimental inoculation of rabbits after immunization with this material shows them to be able to resist an intradural injection of ten times the minimal lethal dose.

The advantages of this method are that the material may be stored up in any quantity in the laboratory; that it need be prepared only every two or three months; that patients may be immunized in a much shorter time than after Pasteur's scheme; that it is safe and its use is free from danger, and that the dosage may be made as exact as in the administration of antitoxins.

DISCUSSION OF DR. HARRIS' PAPER

Dr. W. G. Moore, St. Louis, Mo.: In a series of papers presented in a meeting of this sort, some do not receive just consideration for many reasons. There will not be a more important paper presented here if we fully realize the importance of Dr. Harris' work. What does it mean? He has presented definitely in quantity, and duration of activity to every town, city, and hamlet within miles, or thousands of miles if need be, of St. Louis a specific antitoxin for Rabies. If we will consider that, anywhere, you can put this on the shelf for six months feeling assured that you or others being unfortunate enough to be bitten by a rabid animal, have the remedy present to be applied immediately. Dr. Harris has not written this paper without due consideration and previous detail of work. He has been writing and working at it for a long time, at least five years, in the office of Bacteriologist for the City of St. Louis, which he ably fills. When his paper was sufficiently finished he sent it to authorities who were most reliable, among them the Pasteur Institute in France. Those men gave this paper the most careful scrutiny, and put it in the most scientific crucible. After passing through their hands as it did, I in common with his fellow citizens in St. Louis, Missouri, and in the United States take extreme pleasure in seeing that they place their sign manual of approval on the work and say it is good.

Dr. E. L. Stewart, Kansas City, Missouri: I was very much interested in Dr. Harris' paper. A few years ago we read about hydrophobia, and saw little of it. To-day St. Louis, Kansas City and all of the larger cities are being visited quite frequently with this loathsome, hideous disease. There is more or less of it in Kansas City at the present time, I have a case now under treatment that was infected by her pet dog and

to whom I administered the 14th day's treatment yesterday morning.

The method employed by the Pasteur Institute in Kansas City where most of the treatments administered to patients residing in or near there is prepared, is that of taking the cord from the rabbit as soon as it has died and suspending it over caustic soda to gradually dry as originally carried out by Pasteur. As the process of drying and attenuation or ageing continues from day to day the cord is removed from the bottle containing the caustic soda and short sections are cut off and placed in pure glycerine. Experience proves that in this medium the cord ceases its ageing and that its degree of attenuation becomes fixed for a limited time, at least thirty days. If four days old when placed in glycerine the section remains "Four Day" cord for at least one month and may be sent any place in the United States by mail and be delivered in syringe container ready for injection with ageing unchanged from the time it left the laboratory where it was prepared. This makes the Pasteur treatment quite convenient to the country practitioner and the patients who find it very inconvenient to leave home and business for a sojourn into the city to be gone three weeks.

I was very much interested in Dr. Harris' paper but I did not fully understand the advantages of his method over the method wherein the cord is preserved in glycerine.

There have recently been 300 cases of rabies infection in Kansas City and near vicinity treated with the desiccated cord preserved in glycerine, without a single fatality, thus it may be readily seen that in whatever other way the treatment may be improved upon an improvement in its life-saving power could not be expected.

We blush to admit that such wholesale infection is permitted in these days of preventive medicine, but we must admit the truth. People will not muzzle their dogs unless they are forced by law to do so, and laws requiring dogs to be muzzled, when placed on the statute books, are often not enforced. I do not believe that Missouri suffers any more and probably not as much from these infections as some other states. I only wish to emphasize that the disease throughout the entire country is much more common than it was a few years ago.

If the cord desiccated, ground and preserved in vacuum as presented by Dr. Harris possesses advantages over the older method wherein the cord is first aged and then preserved in glycerine, up to the time it is dissolved in physiological salt solution and injected into the patient; this newer method should be used, but one fact should not be lost sight of: Whatever in the future may be accomplished by way of simplifying the Pasteur treatment, making the cord product more stable or shortening the period of treatment, none of the effectiveness of the present treatment must be sacrificed.

THE NEED OF FURTHER DEVELOPMENT OF THE COUNTY MEDICAL SOCIETY *

L. MALLETTE, M.D.

PARMA, MO.

The need of better organization of the county medical society is obvious to most modern physicians. The county medical society's chief aim should be to bring physicians in closer contact

with each other. From time almost immemorial physicians have been competitors rather than colleagues. This is a deplorable condition for so useful a profession as that of medicine to exist under. It is the duty of every physician, to himself, to his patrons and to his fellow-practitioner, to keep in vital touch with the useful current topics of the profession. To do so he must read such medical journals and literature as will promote the individual physician, as well as the profession in general. He must be associated with medical men and such societies as are conducive to the betterment of our social and professional world.

We owe to each other the friendship of brothers rather than the personal enmity which does exist among so many of the profession.

How often do we see physicians in the same community who will not hold consultation, who will treat each other with dire disrespect and lead the public to believe the other is a "quack" or far below the standard.

We as a mighty army, whose purpose is to combat the ravages of disease and promote the health and sanitation of the world, must needs march organized and harmoniously to greater ends than merely to obtain finance. We must be in harmony. We must work in accord that we may hold the profession before the public above "quackdom."

The great American Medical Association has been for years the prime factor in the education, the uplift and support of the American physician. We owe most to that great society for the present high standard of medical education and ethics.

The state societies have done much to raise the standard of its licensed practitioners. But the society to which must be left the work of producing harmony in various things is wanting in many respects. The county medical society is shunned by many physicians for purely selfish reasons. A physician was once asked why he never attended the county medical society. He replied: "I might lose a case of obsetrics or another physician might be called to visit one of my regular patrons." It is a duty of a county medical society to educate its medical men that more is expected of them than to get rich.

Each physician ought to be required to be a member of his respective county and state medical society, and should be compelled to attend the county society a minimum of one time each year; provided such physician presents a reasonable excuse for all non-attendance.

Great good can be accomplished through the county society with good attendance. A great amount of its time should be spent in discussion of the prevalent maladies of the county at the time such meeting is held.

* Read at the Annual Meeting of the Society of Medical Secretaries, Missouri State Medical Association, Sedalia, May 21-23, 1912.

Great good may also be derived from the post-graduate course as formulated by the *Journal of the American Medical Association*. Physicians, like others, are never too old in their work to learn something new; and since this is an age of new and advancing things, it behooves the doctor to keep abreast with every new advance of this profession.

The world expects greatness in its physicians. It expects advice from him on the most secret of life's secrets. Weak men and women will relate their sordid life history and confess their sins to their physician before they will to their God.

We must make the profession beyond reproach and hold it as a beacon light before the afflicted world. We must hold the whole confidence of those who come under our care, as well as the public at large. There must be a high standard of morals and ethics maintained among the physicians of the whole country.

To effect the harmony so much needed in members of the profession, the county medical society must be taken as a prime factor. Practicing physicians ought to be required to be members of their county society. The society is what we make it, and it can and will pay in return according to the interest manifested in it by its members.

Since the county society should have for its aim, not only the education of its members, but the public mind in general, it must be taken as a benefactor of mankind. Taking it as such we should do much for its development, whether it be along lines to bring about legislative reforms affecting the public health, or whether it aids in the prosecution of medical criminals and fakers, matters not; its motives must be altruistic. It must work for a common benefit. In our part of the state, the recently flooded valley, much could now be done by a well-organized county society to promote the public health and sanitation.

To make our work a pleasure and that of the county society a success, let us devote our time and energy to that great end.

HEMORRHAGIC DIATHESIS*

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We often find ourselves nonplussed in attempting to arrive at some definite and concrete idea when placed before a child suffering from some form of purpura. We are placed at a disadvantage in the differentiation of the various forms, as we endeavor to place the case within the limits

of the numerous classifications which are found in the literature.

My object in the preparation of this paper is the report of some interesting cases of the hemorrhagic diathesis, showing their similarity in many respects, and the impossibility of classifying them within the limits of certain clinical pictures. Litten (*Modern Medicine*), in an excellent monographic article on the hemorrhagic diathesis, says: "The decision as to the nature and character of the disease should not depend on the seat, nor the size, nor the form and confluence of the hemorrhages, nor on the implication of the mucous membranes, the serous membranes, on the internal organs, nor even on the sequence of the individual symptoms." Since the results of therapy within the last few years offer much toward the alleviation and cure of these cases, it is essential that we have a good working knowledge of the various clinical pictures and an understanding of the fundamental pathologic conditions.

The occurrence of arthritic affections, the affection of mucous membranes or serous membranes and the involvement of the gums may be present in any of the hemorrhagic affections, and the special involvement is not characteristic of any one form. "Particularly fallacious is the idea that the situation and the size, as well as the configuration of the hemorrhages, are characteristic of this or that form, as well as the isolation or the confluence of the purpuric spots. It is equally unimportant whether the hemorrhages occur only on the external skin or also on the mucous membranes" (Litten).

The important factor in the recognition of the hemorrhagic diathesis is that the purpura is the primary and dominant factor, and those hemorrhages of secondary nature following, for example, sepsis are not included in the group of affections. The etiologic factor is still undetermined. Many authors adhere to the idea of an infection and many investigators have described specific microorganisms, but the scientific world has not accepted specific findings as applied to the purpuric affections. One distinctive factor differentiates one of the groups, and that is the congenital and hereditary factor that plays such an important rôle in hemophilia. The other groups are acquired affections. "The conception of purpura as a particular chapter of special pathology presupposes the exclusion of all the affections which are combined with hemorrhages of the skin, which hemorrhages, however, prove nothing essential or definite, but are only a single symptom in the entire picture."

Welch, in writing of causation states: "The underlying condition in these bleeding cases I believe has to do with the endothelium lining the blood-vessels, and I believe a disturbance

* Read in the Medical Section of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

in the balance of the ferments of these cells is the immediate cause of the hemorrhages. The blood examinations in purpura tend to show it is not a blood disease *per se* but a toxi-infectious process, as is evidenced by the invariable presence of a polynuclear leukocytosis, arthropathies and occasional endocardial complications."

The citation of the following cases, which of necessity are briefly given, seen and studied by me, are here given to illustrate, as aforesaid, supposedly definite groups. There is no purpuric affection that has one pathognomonic sign. The very interesting case of infantile scurvy, given somewhat in detail, lacked entirely any affection of the gums. Some years ago this would have added an element of doubt in the final conclusions. I wish to emphasize the importance of divorcing certain etiologic factors, e. g., food in scurvy, and the necessity of naming the symptom-complex hemophilia in hemorrhages shortly after birth merely because there is a history of hemophilia in the family, as they mask what otherwise might be a successful search for a definite infectious agent. There is certainly some other factor at play in the causation of infantile scurvy than a mere deprivation of some element in food mixtures.

I sincerely believe that the more open our minds remain, while studying the hemorrhagic affections, the more convinced we will finally be of one common cause in the production of the purpuras.

The following cases of probable Henoch's purpura were seen in an ambulatory service, and as they were seen only once, are given merely as an illustration of the condition described by Henoch in 1868. The characteristic phenomena of this group of the hemorrhagic diathesis lies in the fact of the association of abdominal colic and joint pains in association with a purpuric eruption with a tendency to paroxysmal flurries. "After the third year the number of cases gradually increases to its maximum between the ninth and twelfth years." The duration is variable and the prognosis good.

CASE REPORTS

Boy, aged 8 years, was well until three months ago, when he was taken suddenly ill with severe abdominal colic, referred to the umbilical region, accompanied by vomiting. Purpuric spots appeared over different parts of the body. There has never been any pain in the joints. The attacks of abdominal colic and vomiting would recur every two or three days. This lasted for about six weeks, when the condition of the boy returned to normal. Following a short interval of freedom, there was a recurrence of colic with vomiting, and a widespread purpuric eruption. In the abdomen there is some tenderness, which is more acute in the right iliac space. The boy appears ill, temperature 102. The purpuric spots are tender and not as large as in the case reported below. There has never been any bleeding from the mucous membrane. There is no blood in the urine. There is a tendency noted for the purpuric spots

to appear in groups. Some show the play in colors of disintegrated blood.

Girl, aged 11½ years. There is right iliac pain and tenderness. An abdominal swelling can be palpated in this area. The nature of this mass was problematical. It was assumed that the mass was tubercular. There is slight rigidity over the mass. Heart and lungs normal. No enlargement of spleen. There is a purpuric eruption on legs, distributed between knee and ankle. It is blotchy, bluish, and does not disappear on pressure. The purpuric eruption is more intense on the right leg. There is some paroxysmal pain in the abdomen, but the onset is not simultaneous with the appearance of the purpura. There is also some joint pain of an indefinite character.

Litten's definition of infantile scurvy assumes "an infectious disease of a non-contagious nature, produced by a microorganism which finds in a body deficient in potassium a favorable culture medium for its development." In the American Pediatric Society's Collective Investigation of Infantile Scurvy in North America, a report of 372 cases says: "The nutrition prior to the appearance of scurvy had consisted in ten children of breast milk exclusively, in four of unsterilized, in sixty-eight of sterilized milk, and in the remainder of artificial foods."

There undoubtedly exists some relationship between the heating or sterilization of milk to the advent of scurvy. This process we well know deprives the milk of certain ferments necessary to the maintenance of the proper nutrition. I recall a case of infantile scurvy, in which the only change made was the transference from sterilized cow's milk to fresh cow's milk, in the same proportions as the baby was previously receiving, with the cure of the scurvy manifestations. The part that vegetable acid potash, the acid intoxication (Sir A. Wright), or low fat percentage play in the etiology of scorbutus is problematical and gains importance only from the standpoint of therapy, e. g., potatoes rich in potassium carbonate (Garrod), readily oxidizable salts contained in organic acids (Wright) and the low fat in proprietary foods. In the above report on 372 cases, which occurred during infancy, particularly during the period between the seventh and fourteenth months, in only sixteen were the gums unaffected; in the remaining 313 cases there is mention of either swelling or loosening of the gums or of ulcerative processes in the gums. "In the differentiation of infantile scurvy from other affections classed among the hemorrhagic diathesis, the affection of the gums, the predominance of periosteal hemorrhages and the history afford the means of differentiation; in border-line cases, the differentiation may not be so simple. The report of the following exceedingly interesting case is cited because of the multiplicity of the hemorrhages, the severity of the case and apparent correctness of the food:

Curtis H., aged 3½ years; family history negative. When 6 months of age patient had a swelling over frontal bone (periosteal hemorrhage), hemorrhage into

eyelids on both sides. Recovered in about two months. The child has the pronounced changes of rickets. Four weeks before I saw him, in consultation with Dr. Buck of Triplett, Mo., he was taken ill with moderate fever, prostration followed by hemorrhage into eyelids which was bilateral. There also occurred a paralysis of the lower extremities and left arm. He complained of much pain in the back. Joint pains especially at night, slight cough and dyspnea, digestion poor, appetite capricious, bowels constipated, urogenital track normal. The child is very irritable. It was breast-fed for two years. He was then weaned to fresh cow's milk. Solid food consisted of potatoes, fruit, etc. The child had had no previous illness. Purpuric spots were noticed once or twice over the sacrum.

Present History.—Skin pale, mucous membrane good color, child appears ill. Temperature 101 (rectal). Pulse 130 and regular. No cardiac hypertrophy nor murmurs. Abdomen prominent, otherwise normal. There was a paralysis of both legs, and a pseudoparalysis of left arm, for while awake he would not move the arm, but during sleep the arm was placed over his head. The reflexes were exaggerated. There was a double Babinski; no ankle-clonus. There was some limitation of movement of right hip as he moved the entire spine when the rigidity was taxed in an attempted adduction. He complained quite severely of the right leg. There developed later a double ankle-clonus which in time disappeared from the right leg, but remained present in the left. No atrophy except from non-use. Sensation normal.

November 16: Liver enlarged $1\frac{1}{4}$ inches below costal margin. Liver is smooth and tender. There is a marked distention of the abdomen. The entire left chest posteriorly is flat. Breathing diminished. Pulse 148. Temperature 101. Respiration 60. The patellar reflexes are very active. There is a double Babinski; ankle-clonus disappeared from right foot. There is a purpuric spot, dime-sized, on right side just above knee. Hemorrhages in lids have been absorbed. Tongue clean, mucous membrane normal. No cardiac murmurs. Stools yellow. Appetite remains poor and capricious.

Later course: The child was removed here for observation and treatment. On his arrival I noticed a periosteal hemorrhage in the middle of the forehead, also a periosteal hemorrhage over the left temporal region. The chest posteriorly on left side appeared bowed, and a mass which was thought to be a rib periosteal hemorrhage; but this merely masked the flatness with distant breathing over the entire left chest posteriorly. The heart was pushed to the right about $1\frac{1}{2}$ inches. The temperature commenced to run persistently high and I was of the opinion that the hemothorax was to be converted into an empyema. I inserted a trocar and obtained only blood containing many leukocytes. The veins of his head and face became markedly prominent and the ones on his head stood out like cords. A venous thrombosis or a beginning hydrocephalus was thought of. He grew rapidly worse, and died December 27, with gradually increasing weakness, unaccompanied by convulsions. The respiration for the last month varied between 50 and 72. They were always labored, accompanied often by an expiratory grunt. He had several attacks resembling pulmonary edema in which there would be much dyspnea, very rapid breathing, and the chest bilaterally would be filled with moist râles. Within an hour or two after treatment with packs and atropin, the breathing would ease, râles would disappear and he would seem cheerful.

The examination of the urine, made by Dr. Trimble in September, 1910, was as follows: Specific gravity, 1.022; reaction alkaline; sugar, no trace; phosphated bile, no trace; indican, trace; blood present: red blood-cells, 3,800,000; white blood-cells, 14,200; hemoglobin, 72 per cent.

The differential count was as follows: Polymorphonuclears, 56 per cent.; large lymphocytes, 5 per cent.; small lymphocytes, 16 per cent.; transitional, 4 per cent.; intermediate lymphocytes, 15.

Microscopic examination showed quite a few red cells, some pus cells and some renal cells.

In a count of 200 reds there were two normoblasts and two megaloblasts. Blood platelets, 80,400.

Examination Dec. 1, 1910, showed: Reds, 3,900,000; leukocytes, 14,000; hemoglobin, 70 per cent.

Differential: Polymorphonuclears, 42 per cent.; large lymphocytes, 23 per cent.; small lymphocytes, 19 per cent.; mast cells, 3.5 per cent.; eosinophils, 4 per cent.; transitionals, 6 per cent.

In count of 200 there were three normoblasts, polychromatocytes, poikilocytosis.

Under the old classification of purpura hemorrhagica (*morbus maculosus Welhofii*) was separated the phenomena of hemorrhages from mucous membranes, plus the purpuric eruption. The following cases in brief, illustrate the group:

Girl, aged 9 years, about one year ago patient developed a purpuric eruption, accompanied at different times by bleeding from vagina, epitaxis, mouth bleeding, and some bleeding from the bowels. There were present also a purpuric eruption distributed over various parts of the body, and rather a tendency to large ecchymoses, with a tendency to coalesce. Patient has never had hemorrhages into joints nor has there been at any time arthritic pain. At present there is a large purpuric spot over the upper one-third of the thigh, which is about the size of a pigeon's egg, and one on the forearm about the same size. These blood-sugillations begin as deep swellings, purple in color, tender and their color remains unaffected by pressure. They are hard and form distinctive swellings. A blood-count in this case shows: Reds, 5,761,000; leukocytes, 8,000; polymorphonuclears, 71 per cent.; large mononuclears, 3.5 per cent.; small lymphocytes, 18 per cent.; large mononuclears, 7 per cent.; eosinophils, 5 per cent.

Baby A., 9 months of age, perfectly well until four days ago, when there was noticed a purplish swelling immediately above right malleolus. This swelling was tender. The following day the entire right leg from knee to ankle was involved in the distribution of irregular purplish masses. The evening of the same day the other leg became involved in a like process, followed by one or two swellings on either arm. The child was running a temperature which varied from 102 to 104, rectal. There was a copious nasal discharge from the nasal mucous membrane which was negative to smear and culture of the diphtheritic bacillus. There was a history of some blood in the urine some days preceding this purpuric eruption. The doctor in attendance had been giving quinin by injections. We were unable to find blood in the urine. The baby was given 15 c.c. of horse serum by subcutaneous injection. The hemorrhages had disappeared within a few days with no recurrence to date. This was three months ago.

The treatment of purpura, hemophilia and melena neonatorum has fortunately been rescued from the obscurity of symptomatic treatment and placed on a scientific foundation. The serum treatment of the hemorrhagic affections is a specific in the control of the hemorrhage. The injection of an alien serum, e. g., rabbit and horse serum, has the disadvantage of developing anaphylactic phenomena. Welsh,¹ in a very excellent article entitled "Normal Human Blood-

1. Jour. Obst. and Dis. of Children.

Serum in Obstetric and Pediatric Practice," states that in a review of the effect of the injection of alien serum in the production of anaphylactic phenomena, the following has been noted:

1. Serum sickness with its fever, disturbing urticaria, joint pains, dyspnea, albuminuria, hematuria and occasionally sudden death.

2. It reduces blood-pressure.

3. It decreases the coagulability of the blood.

4. It causes a reduction in the amount of complement.

5. It interferes with nutrition.

"Subcutaneous injections of homologous serum does not produce the above conditions."

When rabbit, horse or human serum is injected into patients suffering from the hemorrhagic affections with delayed coagulation there is an immediate clotting. This may be due to the increase of the blood-platelets, as stated by Duke, or to some nutritional change remedied in the endothelium, as advocated by Welch. Dr. Welch advises normal human serum in dosage of from 15 to 30 c.c., repeated every three or four hours if required. The dosage of the horse serum which I use is from 10 to 20 c.c. The individual must be taken into consideration in the computation of the dosage. It is evident that the injection of an homologous serum is the ideal method, but there is required a special apparatus and technic that will militate against its general usage. The danger of the development anaphylaxis does not affect our judgment in the administration of diphtheritic serum, nor is it probable that this will prevent the general practitioners from the administration of horse serum when confronted with a case of melena neonatorum, an affection which a few years ago was almost of hopeless prognosis.

Some of the cases reported in this paper were seen prior to the general usage of the alien or homologous serums. The cases treated by serum are so tabulated.

The following two cases of melena neonatorum are reported, contrasting the treatment of to-day with that of a few years ago. I am indebted to Buford Hamilton for the history of the first case. I saw the case with him on the sixth day. Space does not allow a discussion of melena neonatorum.

Baby S., born Feb. 10, 1910, labor long; at birth 7½ pounds. All dressing with gauze and sterile gloves. First twenty-four hours babe normal, nursed every four hours. Bowels and kidneys acted; nothing abnormal found. Second day, nothing abnormal. Third day, babe cross all day. Bowels and kidneys acted well, but babe very white. Fourth day bowels acted showing blood in large quantities. Three grains of calcium lactate given every four hours. Nursing discontinued. Nothing but little water given by mouth. All mucous membranes white. Morphine treatment started, nursing continued every four hours on fifth day. Symptoms same as fourth day. Anemia marked, cry weak, skin very

white, as are mucous membranes. The temperature curve 100 (rectal) to 104.8. During illness supportive treatment consisting in hypodermoclysis, whisky, etc. Death on seventh day. Post-mortem negative. A very careful search was made for duodenal or intestinal alien, but none found. The case was seen prior to our knowledge of serum therapy.

The following case was seen in consultation with Dr. Charles Hopkins of Kansas City, to whom I am indebted for the history:

Oct. 16, 1911, delivered Mrs. H. of twins. First pregnancy. The girl baby was delivered breech. Second baby, boy, was delivered after the application high forceps. Twenty minutes was consumed in delivering both children. Girl, 7½ pounds. Boy, 8 pounds. Both apparently normal. Twenty-four hours after delivery the boy had a severe hemorrhage from bowels. This was at 5 p. m. October 17 at 6 p. m. second hemorrhage. On my arrival found boy in state of collapse, rapid and feeble pulse and appearing very pale. At 9 p. m. gave 10 c.c. of horse serum. The following morning at 6 o'clock boy had the third hemorrhage, which was slight. At 8 a. m., October 18, gave 10 c.c. more of horse serum. At midnight of same day another hemorrhage occurred, followed by the injection of 10 c.c. of serum. No more hemorrhages occurred. The boy made a rapid recovery. No anaphylactic phenomena. At present date the boy's weight is 21 pounds; girl, 22 pounds.

Patient.—Baby B., 7 months of age. Weight 14 pounds. Third child. Has four teeth; has been perfectly well and strong. Breast-fed.

Family History.—Mother has had a rheumatic infection with mitral regurgitation. Mother's family history negative as is father's. No history of hemophilia.

Present Illness.—July 5, 1911. For two or three weeks has had what mother called "bruises." These bruises were associated with pains in joints. Some diarrhea, fever and constant crying.

Present History.—Physical examination negative except for the skin lesion. Ecchymosis around eight joints. Size varies from one-half to 2 inches in diameter. There is some induration around purpuric spots. Temperature 100, pulse 100, respiration 26. A course of salicylates relieved the pain within a couple of days. He would have several days without the occurrence of fresh hemorrhages around joints, or any intestinal disturbance. On Aug. 23, 1911, injected 10 c.c. rabbit serum, which was followed by urticaria and nausea within the course of a week. On Nov. 7, 1911, fell and bit tongue, from which there was bleeding for several days. On Sept. 21, 1911, fell injuring mouth which bled for a few days at intervals. On Nov. 7, 1911, injection of 10 c.c. rabbit serum, followed by marked urticaria. This treatment was followed by an amelioration of the purpura. There would occur hemorrhages at times, but they were not confined to the region around the joints. There were never any hemorrhages from mucous membranes except those following injury.

The foregoing history is an illustration of that class in the hemorrhagic affections first described by Schoelien and known by his name. The case was seen in consultation with Dr. H. D. Hamilton of Kansas City, to whom I am indebted for the history of the case. The case is progressing nicely in general health, except that there occurs at various times flurries of purpura which are general and are not so severe as formerly.

933 Rialto Building.

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EDITORIALS

THE ADVERTISING QUESTION AGAIN

A letter published in the September issue brings up the question anew as to the need, the justice and the ethical right of the reputable physician to announce his specialty, or of publicly advertising his presence, in a community. The intimation is, that unskilled and untrained charlatans are now reaping rewards from advertising, that the uninformed public is suffering, and the educated and skilled graduate in medicine is starving or from insufficient means is unable to prepare himself, by research and the purchase of books and instruments, to meet the demands on him; hence in order to protect the public and in defense of the qualified physician who is unknown, the correspondent suggests the wisdom of permitting and recognizing as ethical the insertion in the press of the professional card of the reputable and qualified practitioner of medicine so that his merits may thus be brought to the attention of the ignorant or uninformed.

In reply it should be stated at the outset that, to-day the standards of the medical profession and the efficiency of its individual members are being rapidly raised. This has been brought about not through publicity in the press, but through the quiet, persistent efforts of the scientific and humanitarian members of the medical profession, by advanced educators and an enlightened public who are determined that we become more competent and practical as a profession and of greater assistance to society in sanitation and hygiene.

In the past the proprietary medical schools and the large number of ambitious though untrained individuals, who desired to be in a profession, brought into our ranks many well-intentioned though unqualified and incompetent men. But the proprietary school is practically an institution of the past and, concomitantly, fewer unqualified men are entering the profession.

It must be acknowledged that some brilliant men are practicing medicine who lack business judgment and social instinct, and as a result are unsuccessful in a business way. But such a condition is not peculiar to the medical profession. Lawyers, clergymen and many business men are unsuccessful, and this in spite of methods and absence of governing codes. It is further ad-

mitted that many charlatans and advertising quacks are in our midst with a large and credulous clientele submitting to their unscientific methods and paying their fees. But law and social justice as well as an enlightened public are getting after them and the present rapid dissemination of knowledge of the fraudulent practices of the medical perverts, defectives and unfit is "putting the people wise." Medical advertisers are not doing the business they once did, and it is quite noticeable that as a class they leave no estates.

Many important questions arise when the relations of the medical profession to society in general and to the individual patient are to be considered. Of course the conditions have always been the same, though not so accepted, but we now realize that these relations are primarily social and economic; secondarily they are medical and have to do with a sick body or a sick mind.

In establishing these relations the medical profession long ago should have learned that neither the state nor the municipality owes them a living. Capacity and efficiency are, however, demanded, and when these qualifications are possessed and exercised the state and the world at large seek after and give place and occupation to them without any press claims or advertising. Whether by former methods and customs of acquiring practice, by personal investigation, by civil service opportunity or by our loving friends and legitimate and ethical organization, the man who is able to serve and will serve, does serve. Nowhere is this more true than in the medical profession. In fact, many important teaching positions in our leading medical schools cannot be filled because of the lack of available material, and many towns throughout the United States are urging the better trained men to come to them. Our cities are crowded to-day with doctors who are either starving or adopting questionable methods; not because the ethics of our profession does not permit advertising, but because the men lack capacity and efficiency or are unwilling to go where there is a demand for their services.

But if, for the sake of argument, we as a profession permitted and advocated advertising, what would be some of the results? The question can be answered very easily for there are within our ranks to-day many practitioners and specialists who do advertise in local papers and in medical journals throughout the country. Looking over the county papers of Kansas and Missouri we find the regular profession advertising right beside the cancer specialist, the osteopath, the mind healer and the common quack. By what psychological process is the public to separate the reputable and competent from the unskilled and the unprincipled? It cannot be done. Experience alone can tell. Success in

results is always what brings a doctor his practice, and also continues or increases it. His advertising claims do not bring nor maintain successful medical practice nor a legitimate and intelligent clientele. Further, and to be perfectly frank, in looking over the advertisements in our medical journals, it is a lamentable fact indicating the inevitable finality were greater liberty countenanced, that most of the advertisers are not men in whom the general profession has confidence as to their qualifications and character, nor men whom we would expect the public to follow if they were permitted to advertise in the daily press.

The truth is that the progressive and competent student and practitioner of medicine neither desires nor needs to advertise. If he has merit and is worthy he is in touch with the profession through the regular organization, and is in touch with many social and public organizations which relations are perfectly ethical. In other words, he is serving society and in so far as he does he is repaid.

The man in the medical profession who feels the need of advertising in order that his qualifications be known is the man who is undeserving and sooner or later the people find his real value. The medical profession stands more than ever for the highest and best in social service. It stands for service, patience and humility. Such originally gave it the name of a noble profession.

Modern methods and social reorganization are bringing changes, especially along the lines of prophylaxis and the cure of disease, and in consequence much of the medical work is being put under the jurisdiction and the direction of the municipality and the state. Organized medicine is recognizing this tendency and striving to adapt itself to the newer conditions. New discoveries and research in etiology, diagnosis and therapy are rapidly lessening the demand for a larger number of physicians, and the need and justification of a particular man entering, or remaining, in the profession will depend entirely on his capacity and efficiency. He who has these qualifications need have no fear for true success; and it will come without the aid of the public press.

DEATH IN THE MILK-CAN

Sometimes crimes are ameliorated by circumstances; sometimes grave offenses are robbed of the first degree of heinousness through mitigating provocations which attend their commission or prompt their execution. But what extenuation is there for the man who deliberately poisons people by selling embalmed food in order that he may dispose of the product before it has become so putrid that even embalming fluid will not mask it? Is the crime palliated by the fact that the food happens to be milk—the diet for infants?

The State Food and Drug Inspector recently obtained thirty samples of milk in St. Louis which were found to contain formaldehyd in sufficient quantities to make the milk not only unfit for use, but positively dangerous to infants.

The milk in question was shipped into St. Louis from Illinois, and it has not yet been determined who is responsible for the poisonous adulteration, the St. Louis dealers or the Illinois producers. One thing is certain, however, the offense is a crime and deserves the severest punishment. The offenders should be jailed; men with no more conscience than that are not only undesirable citizens, but dangerous as well, and the state should be freed from the menace of them.

The history of dark and pagan ages contains flaming examples of professional poisoners whose propensities were known in their respective communities and whose services were at a certain premium; but even these assassins were controlled in their practices by the need of the time, the preservation of a dependency not infrequently furnishing an excuse for promiscuous poisonings. But the preservation of milk to the poison point cannot be condoned in this enlightened age.

The philosophical mind can sometimes induce itself to defend the poisoning practices of the ancients on the ground that the defense of the state warranted the employment of such tactics, or it may advance the argument that the doges and rulers of former days did those things because "everybody was doing them," and although it does seem as if the latter argument might have some ground for application in the case of the milk sellers of contemporary times, we doubt whether the argument will find as general acceptance when advanced in behalf of the milkmen of the twentieth century as when appropriated for the benefit of pagans and the people of the dark ages.

Herod may possibly have thought it incumbent on him to slaughter the innocents in order to preserve the family station and hold his job, but no such weighty reason shows itself in extenuation of the crime of the milkmen who, for the sake of selling their wares, load their milk with poison and endanger the lives of babies whose diet is confined almost exclusively to this article of food.

It is time for the authorities to act, and for public opinion to declare itself in condemnation of a commercialism so corrupt and so utterly devoid of mercy and conscience.

The State Food and Drug Inspector does well when he says that he will prosecute the offenders, and the courts should sustain him and guarantee by their rulings that the infants of the community shall have some protection against these wolves whose rapacity and greed cannot be stopped by motives of sanctity of life or the rights of the defenseless.

SHALL THE DUES TO THE STATE ASSOCIATION BE INCREASED?

No one dare question any longer the value of the State Medical Association to the physicians of this state. We are steadily advancing in the estimation of the public, our sphere of usefulness and our influence in all directions have become greater. To the physician himself the value of compact organization is so great and so self-evident that but very few who wish to be abreast of the times persuade themselves to stand aloof and alone. With the establishment of the defense feature, the value of membership has become still greater to the individual.

The perfection and maintenance of the organization is necessarily attended by considerable expense. In spite of the most rigid economy the State Association's affairs, more especially the continuation of the defense feature, will be considerably jeopardized unless means are devised by which our treasury can be increased. The only source from which more funds can be provided is by increasing the annual dues. Before a proposition to do this is submitted it should be thoroughly discussed by the county societies, and we suggest that during the coming winter the matter be well considered by the county societies so that the delegates elected for the 1913 meeting will come prepared to vote in conformity with the wishes of their constituents on the question: Shall the dues to the State Association be increased?

THE DANGER OF INDORSEMENTS

In another column we publish a letter from a member in which he disclaims any responsibility for an alleged indorsement of a proprietary medicine. The communication contains a moral which every physician should heed, for it shows that one cannot trust even persons known to him, if those persons are engaged in the manufacture of medicines, in the matter of recommendation of the medicines.

In this connection we would reiterate the oft-repeated caution not to indorse any proprietary remedy unless that remedy has been approved by the Council on Pharmacy and Chemistry, for most of them are untrustworthy. The private practitioner is in no position to judge whether a remedy is marketed in accordance with the tenets that should govern manufacturers in their dealings with physicians. This is especially true of a class who advertise largely in medical journals for a time and then, after having obtained the indorsements of numerous physicians, switch to the general public and newspapers and brazenly trumpet forth that the medical profession enthusiastically approves the article—and show letters to that effect, too. Sanatogen is a conspicuous example of this class of nostrums, and it is still being advertised in some medical journals.

Tyree's antiseptic powder is another shining example of the gullibility of the physician in establishing for the manufacturer of nostrums a ready market among the public. This is one of the reasons why your JOURNAL has refused contracts for advertising certain articles that might otherwise have been unobjectionable—the previous history of the case being exceedingly bad.

The advertisements that appear in your JOURNAL may be depended on as emanating from reliable sources and, as far as we are able to foresee in the future, are of the kind that will not react on the profession by stinging it with insult. Therefore we urge our members to patronize those firms whose announcements are seen in our pages. Above all, every member should refrain from indorsing even by insinuation any proprietary medicine until that medicine has been tested and approved by the Council on Pharmacy and Chemistry.

FOOD AND DRUGS ACT REVITALIZED

The President recently signed a bill amending the Federal Food and Drugs Act of 1906 so as to restore to the bill the force which it was originally intended to carry.

The bill as originally drafted and passed provided that any drug should be considered misbranded "the package or label of which shall bear any statement . . . which shall be false or misleading in any particular. . . ." The Supreme Court declared that the clause *false or misleading in any particular* applied only to the original source or composition of the product. This deliverance effectively invalidated the bill so far as any reasonable purpose was concerned, and permitted the proprietors of nostrums to plaster all sorts of absurd claims on the package containing concoctions. The court stood three to five on the question, a fact worth mentioning.

The amendment recently become law reads as follows: "If its package or label shall bear or contain any statement, device or design regarding the curative or therapeutic effect of such article, or any of the ingredients or substances contained therein, which is false and fraudulent."

This surely speaks plainly enough. If the patent medicine grafters can do anything to this we are curious to see what it will be.

CLEAN BREAD AND MILK

The St. Louis Board of Health will shortly inaugurate a campaign for greater cleanliness in that city with special reference to the public handling of bread and milk. The board proposes to demand that all loaves of bread be wrapped before leaving the bakeries, and will insist on greater cleanliness in the care of the cows from which milk for city consumption is taken. The

campaign is one for which there has long been pressing need. It is hoped the authorities whose province it is to enforce public measures will give the board due support in this matter.

In this connection we call attention to a report that comes from St. Joseph to the effect that a police judge in that city recently dismissed a case brought against two dairymen by the city, charging them with violation of the city's milk ordinance.

The ordinance provides that milk shall not be sold there if it contains more than 300,000 bacteria to the cubic centimeter; the defendants' milk was found to contain more than 900,000 bacteria to the cubic centimeter. The judge dismissed the case on the ground that the bacteria were harmless and therefore the charge was unjust.

It matters not how sincere a judge may be, his decisions are without justification if based on ignorance, and they defeat the law. We hope that nothing of this sort will be encountered in the courts in St. Louis when measures for enforcing public sanitation are being put into operation.

The courts as a general thing are just and well informed in the latter city, and only recently they upheld the charge of neglect in the matter of providing screens for fruit which was brought against certain delinquent commission merchants.

A CORRECTION

In our last issue we announced in the news column that Dr. D. K. Morton of St. Joseph had been stricken with paralysis and was in a hospital in Kansas City. The notice does not refer to Dr. Daniel Morton of St. Joseph, who, we are happy to say, is enjoying his usual good health and attending to his practice. We make this correction so that the friends of Dr. Daniel Morton shall not be under a misapprehension as to the state of his health.

NEWS NOTES

THE Mississippi Valley Medical Association will hold its annual session at Chicago, October 22-24.

DR. I. D. KELLEY, St. Louis, has returned from Europe where he spent two years in the clinics and hospitals. He will specialize in ear, nose and throat diseases.

ASSISTANT Health Commissioner Jordan, of St. Louis, will recommend the adoption of an ordinance to make infantile paralysis and contagious eye diseases reportable to the Health Department.

DR. F. H. MATTHEWS, Liberty, Secretary Clay County Medical Society, has been confined to his bed with an attack of typhoid fever. At last reports he was progressing nicely and prospects were bright for his ultimate recovery.

THE candidates for Coroner in the city of St. Louis are Drs. Louis R. Padberg and T. L. Carriere. Both these gentlemen are members of the St. Louis Medical Society, the Missouri State Medical Association and the American Medical Association.

DR. H. S. ATKINS, Superintendent in charge at Glenwood Sanitarium, Kirkwood, intends to erect several cottage bungalows in the near future for the care of patients at that institution. The capacity of the present building has been taxed for some time.

VERNON sanitarium located at Nevada. In our last issue we mentioned the establishment of a new sanitarium for the treatment of nervous and mental diseases, conducted by Drs. V. O. Williams and J. M. Yater, and gave the location as at Mt. Vernon. This was an error. The institution is located at Nevada.

A FREE dispensary for eye, ear, nose and throat diseases has been opened at 2329 Locust Street, St. Louis, with the following physicians in charge: Eye Department—Dr. John Green, Jr., Dr. W. H. Luedde, Dr. J. T. Shoemaker, Dr. F. E. Woodruff. Ear, Nose and Throat Department—Dr. H. C. Creveling, Dr. E. T. Senseney, Dr. F. C. Simon, Dr. Selden Spencer.

DR. W. E. STEELE, city physician of Carthage, has stirred the city fathers and citizens to take steps toward improving the conditions of the city jail, especially in regard to the segregation of women prisoners. Dr. Steele says the women prisoners are placed in lattice-work cages and thus are exposed to the full view of the men prisoners at all hours of the day and night. He also severely condemned the sanitary conditions of the jail.

THE Open Air School for Tuberculous Children in St. Louis celebrated its first anniversary August 22. The record of the school has been most encouraging and plans are being laid for increasing the facilities of the school. One child has been pronounced cured after six months attendance and has been given a certificate of health which will admit her to the public schools. She had been previously prohibited from attending the public schools on account of her condition. This child had been treated at the State Sanitarium at Mt. Vernon. Three other children will be given health certificates in a short time and they will then be permitted to continue their studies in the public schools.

Dr. R. E. CASTELAW has been appointed superintendent of the general hospital in Kansas City, vice Dr. L. W. Luscher, resigned. The interns at the hospital gave a dinner to Dr. Luscher and the visiting staff as a mark of their appreciation and the esteem in which they held Dr. Luscher and the members of the staff.

The *Weekly Bulletin* of the Jackson County Medical Society comments as follows on the appointment of Dr. Castelow and the resignation of Dr. Luscher:

"In Dr. Castelow's appointment to this position of trust and responsibility as head of the New City Hospital, we predict a most successful and progressive administration. Dr. Castelow's mental capacity, his executive ability, his knowledge of men and affairs, his ready grasp of the essentials in and motives behind a situation or a problem presented; his close relation to the city government and municipal affairs for years, and his practical and scientific training as a medical man, with a united profession and public back of him, all give well-grounded hopes for his success. The board of health in their appointment and Mayor Jost in his confirmation are to be commended for their good judgment.

"It is fitting for our society at this time to give recognition to the new era of improved discipline in staff attendance at the City Hospital, in the high-grade, faithful and well-trained interns secured, and in an improved good order and sanitation at the General Hospital, never before attained or approached. Under no previous administration has there been less criticism or less occasion for same than during Dr. Luscher's service.

"We welcome Dr. Luscher back into the regular organization, and hope he may be enabled to join us again in society work and other professional associations."

DEATHS

Dr. SAMUEL J. TERRILL of Meta died at his home, September 13, aged 35 years. Dr. Terrill was a graduate of the Barnes Medical College, 1901.

Dr. JOHN T. KNOWLES of Springfield died at his home, September 1, from typhoid fever. He was a graduate of the Memphis Hospital Medical College, 1909, and was a member of the Greene County Medical Society and the State Medical Association. He was 33 years old. Dr. Knowles had established himself very thoroughly in his profession and was highly respected by all who knew him. He gave promise of much ability and capacity for accomplishing a great deal in the practice of medicine, and his loss is deeply felt by the community and the Association.

Dr. EDWARD BORCK, whose death occurred on Jan. 20, 1912, was born at Hamburg, Germany, April 18, 1834. During the war between Denmark and Germany involving Schleswig-Holstein, young Borck acted as volunteer dresser in the military hospital. He emigrated to America, and under considerable difficulties maintained himself while acquiring sufficient knowledge of English to attend the Maryland University School of Medicine, by which he was graduated in 1862. He entered the service of his adopted country as an assistant surgeon in the Army during the Civil War, and resigned his commission Dec. 10, 1864, at New Orleans on account of ill health, having risen to the rank of surgeon.

In 1872 he located in St. Louis, and in addition to his professional work, attended lectures in the St. Louis Medical College, which be-



Edw. Borck

stowed on him in 1874 an *ad eundem* degree. He was one of the organizers of the College for Medical Practitioners of St. Louis, in which he held the chair of professor of surgical diseases of children from 1882 until 1884. He took an active interest in the organized medical profession. He was vice-president of the St. Louis Medical Society and of the Tri-State Medical Association, and held membership in the American Medical Association. In 1884 he was a delegate from the St. Louis Medical Society to the Eighth International Medical Congress at Copenhagen, Denmark.

From the rich storehouse of his experience he made many interesting and practical contributions to surgical literature. He was a man of many accomplishments: he loved music, was a

creditable performer on the piano and sang well. He was no mean artist with the brush, an achievement which stood him well in hand in illustrating his lectures and articles. He laid no little store by his linguistic proficiency. As a man he was honorable and honest; as a surgeon, painstaking, patient and charitable to an unwonted degree. His professional ideals were of the highest, and he strove to attain them by his work and conduct. He leaves behind him the record of a well-spent life. His widow, Dr. Henrietta Stoffregen Borck, survives him.

CORRESPONDENCE

DID NOT INDORSE THEM

ST. LOUIS, Aug. 30, 1912.

To the Editor:—On my return to the city, my attention has been called to a circular letter sent out to physicians by a concern which styles itself The American Recipe Co. In this letter certain tablets, called Aseptone tablets, are advertised, and my name is mentioned as one of those who prescribe these tablets in their daily practice, and who declare that in the employment of these tablets a long stride has been made in aseptic treatment. In connection with this circular letter, I desire to say: 1. That the use of my name was not authorized by me; in fact, I knew nothing of the existence of the said concern. 2. That out of courtesy to the inventor of these tablets, I consented to give them a clinical trial. 3. That I employed said tablets in about half a dozen cases, but have abandoned them since June.

I trust, that in justice to me, you will be good enough to print this letter in the next issue of THE JOURNAL. Very truly yours,

GEORGE GELLHORN, M.D.

LIBRARY CATALOGUE

To the Editor:—The St. Louis Medical Library has issued a catalogue of its bound accessions for free distribution; copies may be had by members of the library on application to the assistant librarian, St. Louis Medical Library, 3525 Pine Street, St. Louis, Mo.

TYPHOID VACCINE DATA WANTED

To the Editor:—About six years ago the writer began to use vaccines in the treatment of typhoid fever. Since that time he has thus treated more than 100 cases, and has obtained numerous articles on the same subject written by physicians in various parts of the world. It seems possible, however, that some may have escaped notice. He also realizes that many of the profession may have treated some cases without reporting them. A paper on the subject is now in the course of preparation. In this it is earnestly desired to incor-

porate reports from a large number of cases, good, bad and otherwise. He accordingly makes the following request to the readers of THE JOURNAL:

Will any one who has used vaccines in the treatment of typhoid fever, whether but one case or more, kindly communicate to him that fact, accompanied by name and address of the reporter? If the results have already been reported, a note of the journal in which they appeared will be sufficient. If they have not been reported, a short blank form will be sent to the physician to be filled out. Due credit will be given in the article to each person making a report. If any physician happens to know of other confrères who have any such cases, it will be appreciated if he sends their names, as they may not happen to read this note. It is hoped that by this means a sufficient number of cases may be collected to somewhat definitely settle the now-mooted question whether vaccines are or are not of benefit in typhoid therapy.

Reports of cases will be accepted at any time in the future, but preferably by November or December of the present year.

Kindly communicate with Dr. W. H. Watters, Director of the Department of Pathology and Bacteriology, Evans Institute for Clinical Research, Boston, Mass.

SOCIETY PROCEEDINGS

JOINT MEETING OF THE EXECUTIVE COMMITTEE AND THE COMMITTEE ON PUBLIC POLICY AND LEGISLATION

A joint meeting of the Executive Committee and the Committee on Public Policy and Legislation was held in the office of the Secretary at 3525 Pine street, Aug. 26, 1912. Present, Drs. F. J. Lutz, L. W. Cape, A. R. McComas, A. W. McAlester, Jr., R. M. Funkhouser and E. J. Goodwin. Dr. Lutz presided.

The secretary informed the committee that he had attended the Texas County Medical Society meeting at Houston on August 8, and organized the Texas County Medical Society, with fifteen charter members and the 1912 assessment paid. He presented the application of the society for a charter as a component society. The councilor of the District, Dr. J. H. Elliott, of West Plains, was also at the meeting and assisted in the organization.

The secretary stated that he had also attended the meeting of the Howell County Medical Society at West Plains on August 9, upon invitation from the society; that he had delivered addresses to the Commercial Club and at a public meeting in West Plains, and also at the county society meeting.

Dr. Funkhouser moved that a charter be issued to the Texas County Medical Society and that the assessment for 1912 be accepted for 1913 also. Seconded and carried.

Dr. McComas called attention to the motion of Dr. Dora Greene-Wilson of Kansas City, on public health education, at the last annual meeting of the Association.

Dr. Funkhouser moved that Dr. McAlester consult with Dr. Wilson and ascertain what action she desired should be taken and authorized Dr. McAlester to make arrangements for the committee. Seconded by Dr. McComas and carried.

Dr. Funkhouser moved that the Secretary write Dr. Wilson of this action; also that the Secretary write Dr. Frederick R. Green of Chicago to send information to Dr. McAlester of the activities of the Council on Health and Public Instruction in order to establish intelligent cooperation of our association.

The subject of the sanitary and hygienic exhibit at the Fair was taken up, and the plans as far as completed announced. The Chairman explained what had been accomplished toward making this exhibit, as follows:

That the State Medical Association through its Committee on Public Policy and Legislation is to have full control of the exhibit and has invited the following health agencies to take part, all of which have accepted: State Board of Health; State Pure Food and Drug Commissioner; State Veterinarian; the Missouri Veterinary Association; the St. Louis Board of Health; the Anti-Tuberculosis Society; that members of the Association have been invited to deliver thirty-minute lectures on preventable diseases, and that Dr. Carrington of the United States Public Health Service and the State Veterinarian and State Veterinary Association had also been invited to lecture. The Secretary informed the Committee of his visit to Sedalia to inspect the halls and found the space for the exhibit appropriate and the hall for the lectures well adapted for the purpose. The following schedule of lectures was then planned:

PLAN FOR LECTURES

Monday, September 30: Dr. Edwin H. Schorer, Typhoid Fever and Water Supply, 10 to 10:30 a. m.; Dr. F. B. Hiller, Vital Statistics, 10:30 to 11 a. m.

Tuesday, October 1: Dr. F. J. Lutz, Cancer, 10 to 10:30 a. m.; Dr. P. M. Carrington, Plague, 10:30 to 11 a. m.; 11 to 12 m., moving pictures.

Wednesday, October 2: Dr. F. E. Murphy, Small-Pox and Vaccination, 10 to 10:30 a. m.; Dr. C. H. Neilson, Tuberculosis, 10:30 to 11 a. m.; 11 to 12 moving pictures.

Thursday, October 3: Dr. R. M. Funkhouser, Venereal Diseases, 10:00 to 10:30 a. m.; Dr. S. Sheldon, Veterinarian, 10:30 to 11 a. m.; 11 to 12 m. moving pictures.

Friday, October 4: Dr. F. L. Henderson, Trachoma, 10 to 10:30 a. m.; Dr. S. Stewart, Veterinarian, 10:30 to 11 a. m.; 11 to 12 m. moving pictures.

Dr. McComas moved that the secretary be instructed to be present at the opening of the Fair at Sedalia and take charge of the management of the exhibit and the lectures. Seconded and carried.

On motion, adjourned.

BUTLER COUNTY MEDICAL SOCIETY

Butler County Medical Society has been holding regular meetings and the interest in society work is general among the members. A program for the remaining meetings of the year has been prepared by the secretary as follows:

October 4: Necessity of Correctly Fitting Glasses, by Dr. Wm. Spaulding. Symptoms Shown by Tongue in Gastric Troubles, by Dr. J. M. T. Smith.

October 11: Cholelithiasis, by Dr. Victor Cadwell. Etiology and Treatment of Jaundice, by Dr. J. L. McAlister.

October 18: Corneal Ulcers, by Dr. J. W. Mott.

October 20: Presentation of Clinical Cases.

November 1: Anemias, by Dr. J. T. Redwine. Etiology and Treatment of La Grippe, by Dr. B. C. Jones.

November 8: Differential Diagnosis of the Exanthemata, by Dr. C. W. Williamson. Intestinal Parasites, by Dr. A. Traubitz.

November 15: Meningitis, by Dr. W. F. S. Taylor.

November 22: Pleurisy, by Dr. I. W. Seybold. Empyema, by Dr. A. Crump.

November 29: Presentation of Clinical Cases.

December 6: Pathology and Treatment of Diseases of Prostate, by Dr. J. M. Lowery.

December 13: Tuberculosis of Joints, by Dr. B. L. Ellis.

December 20: Election of Officers.

CALDWELL COUNTY MEDICAL SOCIETY

The Caldwell County Medical Society met in Breckenridge, August 22, for a post-graduate study of heart diseases. The entire session was devoted to the demonstration of three clinical cases presented by Dr. Geo. W. Goins. The cases were as follows:

Myocardial insufficiency, mitral stenosis and aortic regurgitation. All those who were present manifested much interest in the work.

At this meeting Dr. William L. Chaffin, of Breckenridge, was elected to membership in the society.

Members present: Drs. Tinsley Brown, S. D. Smith, O. N. Thompson, O. O. Meredith, Wm. L. Chaffin and Geo. W. Goins.

The next meeting of the society will be held in Brainer, September 27.

GEO. W. GOINS, M.D., Secretary.

FOURTEENTH DISTRICT MEDICAL SOCIETY

The next meeting of the Fourteenth District Medical Society will be held at Marshall, on October 12. Prospects for this meeting are very encouraging as the interest in the Society has not waned since the formation of the Society last spring.

A number of interesting papers have been promised. In addition to these others will be presented as several physicians have expressed their intentions to write papers but have not decided upon the title. There will be morning and afternoon sessions and a large attendance is expected. The program as prepared thus far, follows:

"Blood-Pressure," by Dr. Lewis Carthrae, Jr., Corder, Mo.

"Endometritis," by Dr. J. F. Mackey, Odessa.

"Pathology and Diagnosis of Pneumonia," by Dr. G. A. Aiken, Malta Bend.

"Immunity," by Dr. John R. Hall, Napton.

HARRISON COUNTY MEDICAL SOCIETY

Harrison County Medical Society held a meeting at Bethany on September 19 at which there were seven members present and Dr. Goodwin, secretary of the state association. In the absence of the president, Dr. A. W. Williams was elected to fill the chair.

There were no papers read and no patients presented so the chairman called on Dr. Goodwin for a talk.

Dr. Goodwin explained the various activities of the state association in which all county societies should be deeply interested. He showed the purposes and objects of the profession as promotive of public welfare especially of public health and appealed to the members of the society to become more interested in these matters. He discussed the means and measures through which the county society can be of beneficial influence both in raising the standard of the profession in the community and for the improvement of hygienic and sanitary conditions in the cities and towns. He spoke of the hygienic and sanitary exhibit which the State Medical Association will conduct at the fair at Sedalia and of the important influence this will have in directing the public mind toward better care of their health.

Drs. Schmid, Broyles and Brewer were appointed a committee on program for the next meeting.

The majority of the members fully realize the large benefits and privileges which come through activity in society meetings and plans were made to stimulate greater interest in the meetings in future. The following members were present:

Drs. F. H. Broyles, O. A. Schmid, Jackson Walker, of Bethany; L. R. Webb, Mt. Moriah; A. W. Williams, W. H. Wiley and Lake Brewer, Ridgeway; and Dr. E. J. Goodwin, St. Louis.

HOWARD COUNTY MEDICAL SOCIETY

Howard County Medical Society met at the office of the secretary in Fayette, September 6 at 2 o'clock p. m. The president, Dr. Doke Gentle, was in the chair.

The following members were present: Drs. Hume, Lewis, Moore, Richards, Bonham, Wright and Watts.

No papers were read and no clinical cases on hand. The weather was exceedingly hot and it was moved to adjourn until the next meeting, which will be held on Oct. 14, 1912.

C. W. WATTS, M.D., Secretary.

MEDICAL SOCIETY CITY HOSPITAL ALUMNI

The regular meeting of the Medical Society of the St. Louis City Hospital Alumni was held at the Hamilton Hotel Roof Garden, Thursday evening, September 5. The topic for discussion was a paper by Dr. Alexander E. Horwitz, "Uncomplicated Fractures of the Tarsal Scaphoid, Adolescent and Adult."

RANDOLPH COUNTY MEDICAL SOCIETY

Randolph County Medical Society met at Huntsville September 12 and held one of the most successful meetings in its history. The special feature of the session was a heart clinic conducted by Dr. C. C. Conover of Kansas City, when a variety of cases presenting diverse heart lesions were examined and diagnosed.

In the evening Dr. D. A. Barnhart, president of the society, and his estimable wife, entertained the visitors and members at their home, where they served a splendid dinner to the guests. A most pleasing feature of the evening gathering was the presence of the wives of many of the physicians. Mrs. Mabree spoke for the ladies and welcomed the members and visitors; she said:

"It is with pleasure that I, on behalf of our fair hostess, extend to our physicians, the physicians of Randolph county, and their martyred wives, a most cordial welcome. It is an honor and a great privilege to have you with us. And were I desiring a wish for you it would be, that a fraternal spirit may exist among you like unto the one that prevails among the wives of the physicians of Huntsville. We have found the old adage 'misery loves company' to be true and we find great consolation in sympathizing with each other, and as 'in union there is strength,' so we find strength in banding together and discussing plans and the best ways and means to manage our wayward husbands. But in the end we all unite in saying that you are the best husbands on earth and your calling the wisest and highest under the sun. You will appreciate with me the little rhyme that reads:

I hear the phone ringing in the middle of the night
O my! the sound is rasping, you know it is a fright.
My husband groans and I hear him feebly say
'Answer it; see who it is and is it right away.'

I respond and find that its Mrs. Jones' baby;
'Has the colic, doctor; do come without delay,
There never was a sicker baby;
Please come, doctor, right away.'

Right away, right away
The doctor's song away.
And when to the pearly gates he'll go,
St. Peter never can say, No.

But open wide the gates will swing
And angel chorus will sing
And the doctor no entrance fee must pay
His task is done—he has the 'Right of Way.'

Dr. Clapp of Moberly welcomed the guests and made a strong appeal to the members of the society to enlarge their sphere of usefulness and increase the influence of the society for both the professional and social benefit of the members and for a higher appreciation by the public of the real purposes and objects of the organiza-

tion. He called on Dr. Funkhouser, president of the State Association, for an address.

Dr. Funkhouser pointed out some of the obstacles that prevent members from having a reasonable understanding of others and pleaded for united and harmonious activity in the county society and state association. He deplored the tendency of the times which is leading to commercialism in the profession by the demand for unnecessarily high fees in certain classes of patients and announced his belief that the reaction against such practices is at hand. He said the profession is on trial at the bar of public opinion and referred to certain articles in lay publications on "The Scandal in the Medical Profession," and "The Inferno of Medical Practice," which grew out of this disposition of a greedy grasp for gold. He said the great majority in the profession was opposed to such practices and urged that we stand together, united and strong, for upholding the high standard of the profession at all times.

Dr. C. H. Dixon, Councilor of the district, expressed his gratification and pleasure in the renewal of interest in county society work by the members of Randolph County. As a body the society can do a great deal of good for its own members and for the uplift of the profession as well as toward the instruction of the people in regard to public health measures. As councilor of the district he wanted the members to feel that he was at all times ready to lend every assistance in his power toward building up the society and increasing its usefulness not only within itself but also as an adviser and director in the broad field of civic improvement.

Dr. Goodwin, secretary of the state association, spoke of the benefits of county society meetings, both in the advancement of knowledge and perception in the recognition and treatment of disease but in the improvement of the material affairs of the physician. He made a special appeal for harmony and good fellowship among the physicians in the county and the fostering of a spirit of interdependence and fraternalism. He said the people are becoming well convinced of the value of the county medical society for it indicated to them that those who attended the meetings were taking full advantage of opportunities to inform themselves of the progress of medical science and become proficient in the handling of disease. This would lead to a quicker appreciation of the services of the doctor and more prompt attention to the payment of bills. He emphasized the importance of maintaining systematic methods in the business side of the professional life and suggested the holding of conferences for the purpose of establishing some uniformity in the conduct of the business side of their work.

Dr. Barnhart expressed his delight and appreciation of the presence of the members and visitors, but was specially happy over the presence of the ladies. He had realized that he could not get along without the helpful influence and attention of his own wife and he now realized that the county society would thrive far better than it had in the past since the wives had determined to become "social" members.

The meeting was a pronounced success and the members departed with the full determination of having more frequent meetings of this kind.

Physicians present at the meeting: Drs. Robert M. Funkhouser, president, St. Louis; C. C. Conover, vice-president, Kansas City; E. J. Goodwin, secretary, St. Louis; J. Franklin Welch, treasurer, Salisbury; C. H. Dixon, district councilor, Holiday.

Members present: Drs. C. B. Clapp, E. W. Shrader, G. O. Cuppaidge, R. C. Campbell, L. A. Bazan, W. D. Halliburton and C. K. Dutton, Moberly; Dr. Alexander, Clifton Hill; Dr. A. Aldridge, Mt. Airy; Dr. F. L. McCormac, Darksville; Drs. S. C. Adams, C. G. Bragg, J. R. Mabree, D. A. Barnhart, J. D. Hammett, J. W. Taylor and J. G. Rafter, Huntsville.

The following doctors' wives were present at dinner: Mesdames Clapp, Cuppaidge, Campbell, Aldridge, Hammett, Mabree, McCormac, Bragg, Adams and Barnhart.

D. A. BARNHART, President.

WEBSTER COUNTY MEDICAL SOCIETY

The Webster County Medical Society held its regular quarterly meeting at Rogersville, Sept. 18, 1912. The meeting was called to order by Dr. C. H. McHaffie, president. Drs. Highfill, Beatie, Bruce, Sayers, McHaffie and Adkins responded to the roll-call. Dr. Turner, of Galloway, a member of Greene County Medical Society, was also present.

The minutes of last meeting were read and approved. The treasurer's report read and approved.

After all other business was taken up and disposed of the Society adjourned for dinner at the Ozark Hotel.

The afternoon session was called to order at 1:45 p. m.

Reports of cases were taken up.

Dr. W. R. Beatie gave us a talk on the Vital Statistics Law and instructed doctors of his methods of obtaining reports.

Dr. Sayers read a short paper which was freely discussed by all doctors present. This paper was very interesting because it dealt with every-day facts concerning the doctors.

The next meeting will be held at Marshfield, Dec. 18, 1912.

Adjourned at 4:30 p. m.

J. R. BRUCE, M.D., Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Ave., Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

NEOSALVARSAN is a mixture of sodium 3-diamino-4-dihydroxy-1-arsenobenzene-methanal-sulphoxylate, $\text{NH}_2\text{OH}\cdot\text{C}_6\text{H}_4\cdot\text{As}\cdot\text{As}\cdot\text{C}_6\text{H}_4\cdot\text{OH}\cdot\text{NH}(\text{CH}_2\text{O})\text{LSNa}$, with inert inorganic salts. The arsenic content of three parts of neosalvarsan is approximately equal to two parts of salvarsan. Neosalvarsan is supplied in sealed tubes containing, respectively, 0.15 gm. (2 3-10 grains), 0.3 gm. (4 6-10 grains), 0.45 gm. (6 9-10 grains), 0.60 gm. (9 3-10 grains), 0.75 gm. (11 6-10 grains), 0.9 gm. (13 9-10 grains). It is readily soluble in water forming solutions which are neutral to litmus and very unstable. The action and uses are the same as those of salvarsan. The average single dose for man is 0.75 gm. (12 grains). It may be administered by intramuscular or, preferably, by intravenous injection. For intravenous injection 25 c.c. freshly distilled water for each 0.15 gm. is to be used. For intramuscular injection 3 c.c. of water should be used for each 0.15 gm. neosalvarsan, this yielding an approximately isotonic solution. Victor Koechl & Co., New York (*Jour. A. M. A.*, Sept. 14, 1912, p. 879).

SALOQUININE, the salicylic ester of quinine, is described in New and Nonofficial Remedies, 1912. The product as sold by Merck & Co., New York, has also been admitted to N. N. R. (*Jour. A. M. A.*, Sept. 14, 1912, p. 879).

ARTICLES ACCEPTED FOR N. N. R. APPENDIX.—

Menthol-Iodol is a mixture of iodol 99 parts and menthol 1 part. Kalle & Co., New York (*Jour. A. M. A.*, Sept. 14, 1912, p. 879).

REFORM IN MEDICINES

THE FOOD AND DRUGS ACT AMENDED.—About a year ago the Supreme Court decided that the Food and Drugs Act of 1906 contained no prohibition against false statements as to therapeutic value. Now Congress has amended the law by adopting Congressman Sherley's amendment which makes therapeutic lies on the label of a medicine illegal by adding the following as paragraph 3 to Section 8, "If the package or label shall bear or contain any statement, design, or device regarding the curative or therapeutic effect of such article, or any of the ingredients or substances contained therein, which is false and fraudulent." There can be no question as to the intent of this amendment. It says to the "patent-medicine" faker in plain and unequivocal terms: "Thou shalt not lie." (*Jour. A. M. A.*, Aug. 31, 1912, p. 727).

VIBURNUM COMPOUNDS AND OTHER NOSTRUMS.—There are a number of drugs which have in some way obtained a reputation as being valuable in the treatment of diseases of women without their therapeutic claims ever having been proven. A considerable number are combined in various nostrums (sometimes with therapeutically active drugs) and exploited for the cure of female disorders. Thus Hayden's Viburnum Compound is claimed to contain American skullcap (*Scutellaria lateriflora*), cramp-bark (*Viburnum opulus*) and wild yam (*Dioscorea villosa*). Other mixtures of this kind including "patent-medicines," proprietary nostrums and "pharmaceutical specialties" contain such drugs as black cohosh, blue cohosh, goldenseal, lady's-slipper, false unicorn-root, cramp-bark, wild yam, star-grass, trailing arbutus, motherwort, Jamaica dogwood, pulsatilla, squaw-vine and saw palmetto. The popularity of preparations of this kind is purely an artificially created one. A nostrum containing, let us say, extractives of some little-used or worthless drugs is put on the market and heavily advertised. Should it be advertised in a manner to make it sell, a host of imitations appear and the large pharmaceutical houses put out substitutes for it. The uncritical physician does the rest. He prescribes it indiscriminately in the class of cases for which it is advertised. Naturally, a certain proportion of the patients who take it recover, and the recoveries are credited to the nostrum. A vicious circle is thus established and the demand for the stuff increases. Its sale, and the sale of similar products, continues until the overwhelming experience of those who have prescribed it proves its uselessness. In the meantime the manufacturers have reaped a harvest at the expense both of the public and of the medical profession. And the manufacturers' excuse for putting such absurd "specialties" on the market is that physicians prescribe them (*Jour. A. M. A.*, Aug. 31, 1912, p. 735).

MISSOURI PROGRESSIVE.—At the annual meeting of the Missouri Medical Association the following motion, urging its members not to support medical journals which carry questionable advertising was adopted:

WHEREAS, The American Medical Association has been doing effective work to counteract the influence of certain medical journals whose advertising pages carry many fraudulent advertisements; therefore, be it

Resolved, That it is derogatory to the best interests of the Missouri State Medical Association for members to publish articles or papers in medical journals which are not in sympathy with the purposes of this organization; and further

Resolved, That members are hereby requested to cease publishing original articles or other matter in journals whose advertising pages contain fraudulent and questionable advertisements and to give loyal and constant support to the *Journal of the Missouri State Medical Association* (*Jour. A. M. A.*, Aug. 31, 1912, p. 735).

THE HABITINA FRAUD.—The promoters of habitina, R. C. Prewitt and Ryland C. Bruce constituting the Delta Chemical Company, were fined \$2,000 and sentenced to five years at hard labor in the United States penitentiary. Habitina was one of those vicious mix-

tures containing large amounts of morphin which are sold to drug addicts but which instead of curing substitute slavery to a high-priced, fancy-named, morphin mixture for that to the simple opiate itself. In summing up the case the post-office inspectors, in their report, concluded as follows: "The conviction obtained in this case has terminated one of the most pernicious and outrageous frauds ever perpetrated on a credulous public, who were not only defrauded out of large sums of money, ranging from a few dollars to over \$2,000 each, but were robbed of health of body and mind; some were rendered blind and some were made maniacs—how many died under the 'treatment' will never be known—but, taking their own testimonials as a source of information, four out of eight have died drug addicts, and out of the thousands of persons they have treated but one witness could be produced by the defendants to testify in behalf of this drug having any remedial properties whatever. These defendants deliberately fostered the most dreadful forms of drug slavery for their personal gain. They made no effort to cure the patient for the blood-money thus obtained. They produced no evidence which would traverse the contention of the Government that the whole purpose of the defendants was to substitute for the slavery to the drug purchased by the habitue from the 'corner pharmacist' under the restrictions of state law, the slavery to the same and worse drugs purchased under a disguised name at many times a fair commercial price from the Delta Chemical Co." (*Jour. A. M. A.*, Sept. 7, 1912, p. 817).

MORPHIN VERSUS THE COMBINED OPIUM ALKALOIDS.—The results obtained with the isolated "active principles" of drugs have in certain cases been observed to be not entirely identical with those obtained by the administration of galenical products or the crude drug itself. This is notably true of opium, the therapeutic efficacy of which is somewhat different from that of its chief alkaloidal ingredient morphin. W. Straub has undertaken to throw some light on these differences. While it is probable that they would be due to the minor alkaloids of opium, to quote Straub: "It is improbable, *a priori*, that it is necessary, in order to improve the action of morphin, to drag in the whole of the two dozen alkaloids of opium; it is much more probable that only the most active or the most abundant of the alkaloids need to be considered." The researches of Straub have made it probable that the practical differences in the action of opium and morphin are mainly due to the narcotin. H. Caesar has made comparable trials with the other alkaloids associated with morphin in opium and found that these do not produce the reinforcement, under discussion. They do have complex modifying effects, however, which are further complicated by any changes in their relative proportions. Since these proportions vary enormously in different samples of opium, and still more in its galenical preparations, Straub and Caesar suggest the employment of a simple mixture of equal parts of morphin and narcotin in place of the opium (*Jour. A. M. A.*, Sept. 14, 1912, p. 882).

FOOD AND DRUGS ACT CONVICTIONS.—The owners or sellers of the following "patent medicines" have been prosecuted by the Federal authorities in the enforcement of the Food and Drugs Act:

Wood's Soothing Syrup. Wm. J. Wood, Trenton, N. J. —It has been claimed to be "a sure cure for croup," "a preventative against taking cold," etc. Analysis indicated it to be a watery-alcoholic solution of opium, aromatic bodies, sugar, inorganic salts and undetermined matter.

Ralston's Select Bran and Aeme Diabetic Flour, Aeme Mills Company of Portland, Oregon.—Ralston's Select Bran was claimed to be a brain and nerve food, to give rightness to the eye, cure torpidity of the liver, etc. Examination proved it to be nothing more than ordinary bran. Aeme Diabetic Flour was sold under the claim that it was "milled by special process to preserve gluten properties of wheat." While this statement gave the idea that gluten was the chief constituent of this

flour, the analysis showed that the product did not contain any more gluten than is found in ordinary wheat flour. While recommended to diabetics it contained an amount of starch equal to that found in ordinary flour.

Dr. Caldwell's Rheumatism Cure, "John" W. Horter, New York.—This nostrum was sold under the usual extravagant claims. Examination indicated it to contain alcohol, salicylic acid, ammonia and traces of bromides, a chlorid, an alkaloid (not identified), sodium and phosphorus were found.

Dr. Caldwell's Anti-Pain Tablets, Dr. Caldwell Medical Company, Poughkeepsie, N. Y.—These were found to contain acetanilid 51.4 per cent., caffeine 12.3 per cent., corn-starch 23.2 per cent., camphor, present. The product was found misbranded because the label said nothing in regard to the acetanilid content.

Hoff's Consumption Cure. Bendiner & Schlesinger, New York.—This was found to contain morphin, cinchonic acid, potassium and arsenic. It was declared misbranded because its morphin content had not been declared and because of the untrue therapeutic claims made. With this cure came four other nostrums: Superlatone, Adjunct Cough Mixture, Concentrated Appolozzer's Mixture and Kodol Tablets, all of which the victim was expected to use along with the "cure" (*Jour. A. M. A.*, Sept. 14, 1912, p. 893).

KELLOGG'S OBESITY CURES AND OTHER NOSTRUMS.—Frank J. Kellogg, starting with nothing, it is said, has become a millionaire through the exploitation of fraudulent anti-fat and anti-lean preparations. From Battle Creek, he sells "Kellogg's Safe Fat Reducer," and "Sanitone Wafers"; a "nerve vitalizer" from Detroit, he conducts the Rengo Company, selling Rengo, an "obesity cure," and the Protone Company, selling protone "a flesh builder." As a side line both companies sell Malto Fruto, "a constipation cure." All of the Kellogg products are dispensed on the medical mail-order plan. Kellogg's Safe Fat Reducer was formerly known as "Kellogg's Obesity Food" and has been found to contain thyroid gland, poke root and toasted bread. Rengo, formerly known as "Rengo Fruit" has been found to contain thyroid gland, poke root, cascara and cassia fistula. It is little less than criminal that ignorant quacks of Kellogg's type should be permitted to distribute indiscriminately drugs that have the potency for harm that is possessed by thyroid preparations (*Jour. A. M. A.*, Sept. 21, 1912, p. 958).

THE DETERIORATION OF DRUGS.—Investigation has shown that many drug preparations are prone to deteriorate and that drugs are often many years old when they reach the patient. While some firms have attempted to dodge the responsibility in various ways, others are doing what ought to be done and indicate the date of manufacture on the label of those preparations which are prone to deterioration. This is done for a number of preparations in New and Nonofficial Remedies. A serious attempt to overcome deterioration has been made in a recent report by Pittenger and Vanderkleed, of the scientific staff of the H. K. Mulford Co., on methods for the preservation of fluidextract of ergot. They found that a fluidextract of ergot, put up in hermetically sealed vials, kept its strength for a year without the least change (*Jour. A. M. A.*, Sept. 21, 1912, p. 959).

BOOK REVIEWS

MICROBES AND TOXINS. By Dr. Etienne Burnet of the Pasteur Institute of Paris. With a preface by Elie Metchnikoff. Translated from the French by Drs. Charles Broquet and W. M. Scott. 8vo. Illustrated. Pp. 316. New York, G. P. Putnam's Sons. 1912. \$2.00 net.

This is truly a remarkable work. It is equal to a library in scope and fullness, and is a wonderful summary of the results of the tremendous labors which have accrued in the study of microbes and their toxins.

The fifteen chapters comprising the book review microbiology in all its aspects; the work is instructive without being wearisome, and concise without being insufficient. There are two splendid chapters on immunity, and a chapter of especial interest devoted to the discussion of anaphylaxis. Certain other chapters are concerned with the form and structure of microbes, the physiology of microbes, applications of bacteriology, the general functions of microbes, and further matters of equal interest.

The world celebrated Dr. Metchnikoff who induced the author to undertake the present work prefaces the accomplishment with a virile introduction in which he praises Dr. Burnet in high terms. The author was fortunate in the selection of his translators. The volume will appeal to the scientist, the physician, and the educated layman. The typography of the book leaves nothing to be desired.

PROGRESSIVE MEDICINE. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by H. A. Hare, M.D., assisted by L. F. Appleman, M.D. September 1, 1912, pp. 353. Illustrated. Lea & Febiger, Philadelphia and New York. 1912. \$6.00 per annum.

An especially interesting number of *Progressive Medicine*. The subjects discussed being: Diseases of the thorax and its viscera, including the heart, lungs, and blood-vessels; dermatology and syphilis; obstetrics, and diseases of the nervous system.

A carefully annotated bibliography is one of the features of this valuable publication. This bibliography enables one to trace the material to its source, and greatly enhances the worth of the particular article.

THE PRINCIPLES OF HUMAN PHYSIOLOGY. By Ernest Henry Starling, M.D. (London), F.R.C.P., F.R.S., Jodrell Professor of Physiology in University College, London. Octavo, 1423 pages, with 564 illustrations, some in color. Cloth, \$5.00, net. Lea & Febiger, Philadelphia and New York, 1912.

This physiology possesses merits far exceeding those of the average work of the kind. The author goes further than mere description which is the limit of scope of most works on physiology; he analyzes the energetic and material changes which occur in the living organism, and seeks to discover the routine sequence of events in the organism under all conditions from the occurrence of the external exciting change to the ultimate reaction, calling in physics and chemistry to aid him. The consequence is a work having real therapeutic interest for the practitioner, as well as for the student.

Special attention is devoted to the study of the physiology of nutrition.

Dr. Starling's work is one of the most competent that has appeared at any time.

A TREATISE ON DISEASES OF THE HAIR. By George Thomas Jackson, M.D., Professor of Dermatology in the College of Physicians and Surgeons, Medical Department of Columbia University, and Charles Wood McMurtry, M.D., Instructor in Dermatology in the College of Physicians and Surgeons, Medical Department of Columbia University, New York. Octavo, 366 pages, with 109 engravings and 10 colored plates. Cloth, \$3.75 net. Lea & Febiger, Philadelphia and New York, 1912.

This book is intended for the practicing physician and contains all that is known about diseases of the hair and scalp. It possesses the double virtue of being both authoritative and practical and is the first book to appear on this subject which can justifiably claim this distinction. The engravings and plates with which the work abounds are special features and lend greatly to its value.

ELEMENTARY BACTERIOLOGICAL AND PROTOZOOLOGY. The Microbiological Causes of the Infectious Diseases. By Herbert Fox, M.D., Director of the William Pepper Laboratory of Clinical Medicine in the University

of Pennsylvania. 12mo, 237 pages, with 67 engravings and 5 colored plates. Cloth, \$1.75 net. Lea & Febiger, Philadelphia and New York, 1912.

An excellent bacteriology for the nurse and the beginner. It is written in the popular style and adequately fills the purpose for which it was designed. The volume commends itself for use in high schools and academies by reason of its directness and lucidity of expression.

THE PRACTITIONER'S ENCYCLOPEDIA OF MEDICINE AND SURGERY IN ALL THEIR BRANCHES. Edited by J. Keogh Murphy, M.C. (Cantab.), F.R.C.S. Surgeon, Miller General Hospital, for South-East London, etc., etc. Large 8vo. Illustrated. Pp. 1423. New York, Oxford University Press, 1912. Cloth, \$7.00. Half Leather, \$8.00.

A compact encyclopedia dealing with medicine in all its aspects, and containing information upon all those subjects for which the physician may expect to have use at any and all times.

This is one of the few really satisfactory encyclopedias which we remember having seen. In its compilation practically everything of a medical nature, to which there would seem to be the slightest chance of reference in the course of the practitioner's daily routine, has been included. The indices are so convenient and liberal that no difficulty will be experienced by anyone in locating a given subject in a minimum of time.

The author was assisted in his work by Drs. Wm. Osler, and C. Roney Schofield, and among the contributors are numbered certain of the most eminent men of the time.

PRACTICAL MEDICINE SERIES COMPRISING TEN VOLUMES ON THE YEAR'S PROGRESS IN MEDICINE AND SURGERY. Under the editorial charge of Gustavus P. Head, M.D., and Chas. L. Mix, A.M., M.D. Vol. IV. Gynecology. Edited by E. C. Dudley, A.M., M.D., Professor of Gynecology, Northwestern University Medical School, and C. von Bachelie, M.S., M.D., Assistant Professor of Obstetrics, Chicago Polyclinic and College of Physicians and Surgeons. Series 1912. Pp. 226. Year Book Publishers, Chicago. The series of ten volumes \$10. This volume, \$1.25.

A good number and unusually interesting. The six sections of the volume, divided into appropriate sub-heads are: General principles; infections and allied disorders; malformations and tumors; traumatism; displacements, and disorders of menstruation and sterility.

A MANUAL OF CHEMISTRY. A Guide to Lectures and Laboratory Work for Beginners in Chemistry. A text-book specially adapted for students of medicine, pharmacy and dentistry. By W. Simon, Ph.D., M.D., Professor of Chemistry in the College of Physicians and Surgeons, Baltimore, and in the Baltimore College of Dental Surgery; Emeritus Professor in the Maryland College of Pharmacy; and Daniel Base, Ph.D., Professor of Chemistry in the University of Maryland. New (tenth) edition, enlarged and thoroughly revised. Octavo, 774 pages, with 82 engravings and 9 colored plates, illustrating 64 of the most important chemical tests. Cloth, \$3.00 net. Lea & Febiger, Philadelphia and New York, 1912.

This work has now reached its tenth edition, surely an eloquent testimonial of its worth. The volume is primarily a student's book, and is specially adapted for the use of the student in medicine, pharmacy and dentistry.

The tenth edition has been carefully revised, and numerous additions have been made bringing it up to date. The section on physiological chemistry has received special attention and contains the latest in chemical examination in clinical diagnosis.

The student and the graduate will find the volume thoroughly adequate for all ordinary needs.

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EDITOR

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A. W. McALESTER, Jr., M.D.
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ORIGINAL ARTICLES

ICTERUS GRAVIS SIMULATING PHOSPHORUS POISONING: REPORT OF A CASE WITH POST-MORTEM FINDINGS*

ELSWORTH SMITH, A.M., M.D.

ST. LOUIS

Mrs. H. M., female, married, aged 25 years, born in Austria. Entered our service at St. Louis Mullanphy Hospital, Dec. 16, 1907, 12:30 a. m. as a stretcher case and delirious, so that the meager history obtained was furnished by her husband who, in English very difficult of understanding, stated that his wife had always enjoyed good health, that they had been married five and one-half months and that she was five months pregnant; that she had been taken with chills and fever one week before admittance; had had a good deal of nausea and vomiting, so persistent in fact that she had been unable to retain much nourishment. Also had much abdominal pain, the exact location of which he could not state; she had become suddenly very much worse the morning of the day before her admittance and had been delirious ever since with occasional lucid moments. He was quite certain that she had taken no medicine or drugs other than ten powders prescribed by her physician which from the druggist it was learned consisted of simply one-tenth grain calomel to each powder.

On examination patient appeared to be a well nourished female, about five feet four inches in height. The skin was generally and deeply icteric, also conjunctivae. There was present such a restless delirium that it was with difficulty that the patient could be retained in bed. On careful physical examination no evidence could be obtained of any lesion of the central nervous system. The chest and abdomen were negative save an entire absence of the superficial liver dulness, and also an enlarged uterus, apparently about the fifth month of pregnancy. The pulse ranged from 145 to 150, small and weak. Temperature did not exceed 102 F. (rectal). Patient vomited blood in small quantities once at 4 and again at 4:30 p. m.

Urine: catheterized specimen, dark amber, sp. gr. 1.020, acid, bile present, albumin one-fifth per cent., sugar none, sediment; many epithelial cells containing fat droplets, few granular cells, few pus cells; no leucin or tyrosin could be found.

At no time was any phosphorescence observed either about mouth, in vomit, feces or urine. Patient grew steadily and rapidly worse, unconsciousness supervened, but the restlessness persisted to the end: death occurred

at 8:30 p. m. twenty hours after her admittance. There were no convulsions, no paralysis.

Post-mortem report as follows: Examination made December 17, fourteen hours after death. Female well developed, brown hair, brown eyes, pupils equally dilated, skin and sclerae deeply jaundice; teeth in good condition, gums swollen; rigor mortis absent. Thick layer of bile tinged fat in abdominal wall; liver not visible; uterus rising into abdomen; nothing in lungs or pleura of interest; heart muscle flabby; hemorrhagic extravasations under visceral layer of pericardium. Valves normal.

Kidneys: Both organs slightly enlarged with cortices rather small but pyramids enlarged; congested, showing evidence of fatty degeneration.

Spleen: Shows only mottling on section.

Liver: Weight 3 pounds and one-half ounce. Soft, capsule smooth, transparent, glistening. Color of anterior surface yellowish blue. Color of posterior surface dusky blue. Left lobe mottled brown with yellow. Gall-bladder moderately distended; gall ducts patulous. From cut section blood oozes freely, color dark brownish red mottled with yellow, with black spots. Lobules indistinct.

Pancreas: Soft pinkish yellow in color; shows minute hemorrhages on cut section. Uterus contains fetus at probably the age of five months.

Microscopic examination of tissues, by Dr. E. F. Tiedemann:

Liver: So much altered that normal structure can no longer be recognized; cannot distinguish acini; many cells necrotic; others in state of advanced fatty degeneration, due partly to effect of poisons in liver parenchyma and partly to autolysis.

Heart: Cloudy swelling, but no other changes.

Kidney: Shows cloudy swelling and extensive fatty degeneration.

Chemical examination: Made by Mr. J. W. Barrow.

Material analyzed—about 300 c.c. liver and 100 c.c. kidney.

This material was tested for phosphorus through first, an effort to obtain phosphorescence by distillation; and secondly, through the ammonium molybdate test, both of which procedures were absolutely negative.

This case was selected for consideration, first, because instances of fatal, acute, hepatic insufficiency with jaundice are not of very common occurrence as evidenced by no case having occurred during the first eleven years at Johns Hopkins Hospital: Osler, up to the third edition of his work, had never seen a case; but mainly because several points of interest naturally arise in the study of this case to which we may, I

* Read before St. Louis Society of Internal Medicine.

trust, profitably devote a few moments to-night, and which I shall do no more than touch on, leaving their complete elucidation to your more able treatment in the discussion.

First: This case from clinical, post-mortem and microscopic findings is undoubtedly one of acute parenchymatous disease of the liver amounting, in fact, to a necrosis of the hepatic parenchyma, and yet we cannot call the case one of "acute yellow atrophy of the liver," because of the weight of the organ which was about normal, viz., three pounds.

Second: Because of the approximately normal weight of the organ and because of the complicating pregnancy, the condition simulated phosphorus poisoning.

Third: Why is it that a jaundice of the same degree should at one time be benign and at another time malignant?

Taking up the first point, the case in question as stated, tallies in every detail with acute atrophy of the liver, except in the important one of there not having been any atrophy of the organ. This, however, may be explained by the very short duration of the case, as the serious symptoms probably covered all told not more than three, or, at the most, five days, so that there was hardly time for absorption of the necrotic and fatty degenerated tissues so as to give the shrunken condition of the organ. Minkowski of Cologne, in *Modern Clinical Medicine*, says: "But the intensity of the clinical symptoms by no means invariably corresponds with the intensity of the anatomical changes. Often the patient perishes before this characteristic stage is reached, viz.: that of atrophy. Therefore, the term 'icterus gravis' does not always aptly describe the condition known as 'acute yellow atrophy.'"

Rolleston, in his classical work on the liver, says: "Icterus gravis includes a number of different conditions," and gives the classification according to Poix as follows:

Specific and Primary Icterus Gravis—

In Phosphorus Poisoning (Temperature subnormal).
Yellow fever (Febrile).

Essential acute yellow atrophy.

Non-specific and always secondary—

In staphylococcal and streptococcal infections (Febrile).

In infections with the Colon Bacillus (Subnormal Temperature).

Quinke, in Nothnagel's "Encyclopedia of Practical Medicine," says in his chapter on acute yellow atrophy, "From all we know in regard to acute yellow atrophy of the liver, we can conclude that we are not dealing with a uniform clinical entity, but that a variety of noxious agencies may affect the liver and at the same time some of the other organs as well." And again a little further on he says, "We cannot draw any con-

clusions in regard to the nature of the functional disturbances that exist during life from the size of the organ after death."

From the above authoritative statements, it would appear rather clear that the size of the liver in the disease under consideration depends greatly on the duration of the attack. Then again, the symptoms of acute yellow atrophy may be engrafted on previous existing conditions of the liver in which the atrophic process is an impossibility. As, for instance, it may complicate hypertrophic cirrhosis of the organ. It would, in a word, seem that acute parenchymatous degeneration or necrosis of the liver would be a better term for the condition than acute yellow atrophy.

Thus, then is explained the size of the organ in the case presented. But it must be admitted that after the organ has been weighed in the autopsy room our diagnosis for a moment wavered and we, of course, then at once again thought of the possibility of phosphorous poisoning. Both because the two conditions so closely resemble one another, and secondly, because of the presence of pregnancy. For we know that often the taking of phosphorus is resorted to for the bringing about of abortion, and especially in the part of the world our patient hailed from, viz., Austria; also in Germany. Witthaus and Beck, in Vol. IV of their work on Medical Jurisprudence, citing 294 cases of suicide with phosphorus, state that 177 were in Germany, fifty-five in France, thirty in Great Britain, six in Sweden, seven in Finland, four in Belgium, three in Switzerland, one in Russian, one in Canada, one in Italy, three in New Zealand and three in the United States. They further state that only eighty of the above were men as against 172 in women, and that of the latter many took the poison with the object of provoking abortion rather than with the intention of destroying themselves.

On the other hand, pregnancy is one of the conditions with which acute yellow atrophy of the liver is most frequently associated. To quote Quinke again, "Acute yellow atrophy is a very rare disease. It is seen more frequently in women than men, in the proportion of eight to five, and about half of those afflicted, particularly among women, are from 20 to 30 years of age. About one-half to one-third of all women afflicted are in the fourth month or later stages of pregnancy. The lying-in period also seems to predispose to the disease, although it is less frequently encountered at this time than at the earlier periods of pregnancy.

The points in the differential diagnosis between acute yellow atrophy and phosphorus poisoning given by Quinke, are as follows:

ACUTE YELLOW ATROPHY

1. Generally preceded by a more or less extended period of illness; one to two weeks, and icterus.
2. Icterus as a rule more intense and older.
3. Liver sensitive and reduced in size.
4. Cerebral symptoms appear suddenly; combination of excitement and depression, appearing one or two days before the end.
5. In the urine oxymandelic acid; leucin; much tyrosin; peptone, sarcolactic acid.
6. Hemorrhages smaller; fewer.
7. Duration, several weeks.

ACUTE PHOSPHORUS POISONING

1. Gastritis immediately after poisoning; icterus on third day following a pause of two days.
2. Icterus recent and less dark.
3. Liver sensitive after beginning of third day and enlarged.
4. Cerebral symptoms corresponding to general prostration, more of depressive type appearing toward end.
5. In the urine much sarcolactic acid, peptone, tyrosin.
6. Hemorrhages large; wide spread.
7. Duration, less than a week.

As to the differential diagnosis in our case, we could in the first place hardly assume that a woman would wait until the fifth month to try to bring on a miscarriage. Secondly, while the attack was very short and fulminating, still there was never any sign of the presence of phosphorescence, either about the mouth or in the urine or feces. Then, too, the cerebral symptoms were rather those of excitement than of depression. But the diagnosis was finally clinched by the characteristic microscopic findings in the liver tissue, viz., that of a marked necrosis of the parenchyma rather than pure fatty degeneration, and also by the entire absence of phosphorous in the tissues after a painstaking chemical search.

It may, however, be argued that this chemical search of the tissues was made too long after death to discover the poison had it been present; viz., after a period of ten days. And yet, Witthaus and Becker report cases in which phosphorus has been discovered forty-two days, eight weeks, twelve weeks and even five months after the death of the victim.

And now, lastly, we come to the consideration of the final point, viz., the cause of the fatal symptoms of the disease in question. That the grave symptoms are not to be attributed to the mere presence of jaundice is readily proven by their entire absence in catarrhal jaundice, though the tingeing of the tissue may be just as deep and its duration much longer in this benign form than in the malignant type. Also, that the critical condition is not due to the absence of the bile from the intestinal tract is also proven by the comparative good health and comfort enjoyed by those who have had established permanent biliary fistulas.

But when we come to any interference with the free circulation of the portal blood through the liver and the action on this blood-current of the normal liver parenchyma, then do we see develop-

ing the train of serious and dangerous symptoms which frequently end fatally. Thus we see these alarming disturbances arise in the lower animal in the condition known as Eck's fistula, in which the portal circulation is short circuited into the inferior vena cava. The same condition of affairs obtains in man. In some cases after Talma's operation for cirrhosis of the liver where, as a result of a too sudden deflection of the flow of blood from the lesser to the greater venous circulation away from the liver, the patient succumbs with all the manifestations of icterus gravis. So too, we have the same train of symptoms in the too sudden and too extensive removal of portions of the liver in the lower animal, whereby while the portal blood is not shut off from the liver, still there is not sufficient liver parenchyma present to properly act on said blood-current, which, of course, was the condition of affairs in the patient reported. There was such an extensive necrosis of her liver parenchyma that the blood in her portal vein failed to receive the proper treatment in its course through her liver, and as a result she manifested the symptoms described.

Evidently, then, the cause of the manifestations of icterus gravis must be attributed to a hepatic insufficiency, due either to a perversion or a destruction of the vital action of the cells of the liver lobules, or else to an interference in the blood-supply through the portal vein.

This, however, opens up the subject of liver metabolism, which is far too extensive to consider at this time. Suffice it to say that the poisons causative of the grave and fatal symptoms in our patient were probably generated through some faulty metabolism of the proteids by the liver parenchyma. We know that besides the elaboration of bile and glycogen the liver is probably the principal agent in the production of urea. We know too that in the disease under consideration we find a marked diminution in the excretion of urea, while at the same time there is a marked increase in the excretion of ammonia and uric acid. A condition of hepatic auto-intoxication or acidosis supervenes. Minkowski says, "Probably, however, the substances whose accumulation in the organism bring about this auto-intoxication (in hepatic insufficiency) are to be sought for in certain prior nitrogenous stages of urea; the further development of which occurs in the liver; or, in the toxic products of intestinal decomposition, which, under normal circumstances, are deprived of their deleterious power by passing through the liver; or, in products of decomposition of the hepatic tissue itself, which may be destroyed by the action of the same deleterious agent which generates the disease."

We must not overlook in this connection the so-called "detoxicating function of the liver," whereby it absorbs as it were from the blood and renders inert many poisons. The blood, for

instance, from the portal vein of a dog is more poisonous to rabbits than is the blood from the hepatic or systemic vein.

In this connection, also, the strange and close resemblance of acute yellow atrophy to acute phosphorus poisoning suggests the possible rôle of phosphorus in both conditions, and Kobel advances the theory that in acute yellow atrophy the intoxication may be due to phosphorated hydrogen, which gas he assumes is generated in the intestines from the phosphates by the action of certain bacteria. He believes that the hydrogen compound of phosphorus acts in the same way as phosphorus itself.

Humboldt Building.

EMPYEMA IN INFANCY, REPORT OF A CASE *

JULES M. BRADY, M.D.

ST. LOUIS

Empyema in early life, owing to its frequency and to the fact that it is often not recognized, assumes very great importance. It is so often overlooked that the term "latent pleurisy" has taken a place in pediatric literature. Henoeh, however, states that the latency of pleurisy is not based on the nature of the disease, but on the carelessness of physicians.

As in many other conditions this disease in the young presents many differences in regard to etiology, pathology and physical signs, when compared to the disease as occurring in the adult. Primary pneumococcal empyema occurs, but is rare and the vast majority of cases of empyema are secondary to pneumococcus pneumonia whether it be of the lobar or lobular type. In the adult this statement does not apply as most of the cases are due to the streptococcus with quite a large percentage dependent on the tubercle bacillus. In infancy and early childhood the tubercle bacillus is very seldom the causative agent. In the child as in the adult, given a lobar pneumonia, the diagnosis pleurisy follows almost as a corollary. But in the young this pneumococcus fibrinous pleurisy shows a special tendency to go on to suppuration which is the explanation for the great frequency of the disease at this time of life.

Empyema may be met with even in the newborn, but here it is a streptococcus infection, and is one of the clinical varieties of sepsis neonatorum. All through infancy up to the sixth year, the frequency of the disease demands that the possibility of its presence be ever borne in mind. In the order of their frequency we would place the causative microorganisms as follows: Pneumococcus, streptococcus, staphylococcus, tubercle bacillus, colon, typhoid and influenza bacillus,

and the gonococcus. All varieties except the first four are unusual.

We may ask ourselves what is the explanation for the fact that this condition is so often overlooked. To begin with physical examination in the young is often hastily performed or very incompletely carried out. Again the history of pneumonia and the fact that pus in the chest is a frequent cause of the failure of the child to return to health, is overlooked. The physical signs may be misleading; it should be remembered that the most valuable single physical sign is elicited on percussion. The feel of great resistance to the percussing finger met with over an empyema of fair size is very marked and characteristic. In the young the thin elastic chest wall makes this resistance especially marked. There is no consolidation of the lung with the exception of that of a cheesy pneumonia which imparts to the finger this sensation of resistance. Anteriorly beneath the clavicle, Skoda's resonance, due to condensation of the lung, points to fluid at the base posteriorly, and is considered by some as an absolute indication for an exploratory puncture. It should be emphasized that the percussion stroke should always be light.

Contrary to what might be thought, auscultation gives us little aid, and in fact, is very often liable to mislead us. Bronchial breathing and bronchophony are usually heard, and only too often are interpreted as meaning a consolidation. Groco's sign, that is a triangular dullness over the sound side posteriorly with its base to the spine should not be lost sight of. Displacement of the heart best made out by palpation is weighty evidence of the existence of fluid in the chest. The apex beat may not always be felt, and here we must make use of the stethoscope in order to locate the heart. The vocal fremitus so often shows no change in young children that we can seldom expect any aid from this physical sign.

It is not unusual for the little patient to give no evidence of pain; dyspnea and cough may be scarcely noticeable and fever may be absent or mild. The presence of pus in the chest always has a deleterious influence on the nutrition of the child, and if the condition has existed any length of time, wasting becomes a prominent symptom. If the diagnosis of fluid in the chest has been made, we must decide as to its nature. In this connection it must be remembered that the younger the child the more liable we are to be dealing with pus, after the sixth year the sero-fibrinous cases become more numerous. A polynuclear leukocytosis would have a bearing on the diagnosis, but for proper treatment an exploratory puncture is absolutely required. Radioscopy was of great value to me in one case in making a differential diagnosis between a fibrosis of the lung and an empyema; the patient was a rickety child with a very much deformed chest. The heart was not in its normal position, and marked

* Read in the Medical Section of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

dulness was present posteriorly over the left chest. Exploratory puncture was negative. The plate was interpreted by the Roentgenologist as indicating a thickened lung; the subsequent course proved the correctness of the diagnosis. The fact that the recognition of the true condition followed by proper treatment rescues the child, if over two years of age, from almost certain death demands that physicians caring for children be on the watchout for this complication.

With these few remarks I will proceed with the citation of a case of empyema in a young baby recently met with in private practice:

Baby J. came under my observation May 22, of last year, aged 6 months. The mother stated that the baby had always been strong and vigorous up to six weeks before. At that time it took sick suddenly with pneumonia. After a desperate illness of nine days the fever abated. Ever since the baby has been losing weight, is cross, fretful and sleeps but little; there has always been some fever. Breast fed from birth.

On examination I found a baby in an advanced stage of marasmus, the skin hung in folds, the ribs were distinctly visible and the face bore an anxious expression. Temp. 102 F. Pulse 150, respiration 50. Pupils were equal and responded to light, there was distinct retraction of the neck, no spasm or paralysis of the extremities, knee-jerks equal and normal. Contralateral leg reflex absent, Brudzinski's neck sign present. Anterior fontanelle not bulging. Heart displaced to the left, marked dulness with increased resistance over the right chest posteriorly, most marked at the base. Over this area bronchial breathing and bronchophony were heard. Nothing definite could be said in regard to the vocal fremitus. Liver palpable 2 cm. below the free costal border, spleen not palpable, abdomen tympanitic, slightly distended.

Diagnosis: That fluid was present in the chest and that this fluid was pus seemed positive and only needed exploratory puncture for this to be corroborated. But how was the Brudzinski sign to be interpreted? In 1909 Brudzinski published this sign, which is elicited by making passive flexion of the neck forward which causes flexion of the legs at the hips and knees and a marked flexion of the legs on the pelvis. The test is performed by taking the head of the child lying flat on its back in the left hand and flexing it on the chest, the chest being held down by the right hand. He found this sign in 20 of 21 cases of tuberculous, in all of 11 cases of cerebrospinal, and in 2 of pneumococcus meningitis. A large number of children ill with various diseases, failed to show the sign. It was found positive, however, in 4 infants backward of development, one case of meningismus, one of encephalomyelitis and one case of mongolism. Morse¹ has studied this sign and comes to the conclusion that its presence in an acute disease is strong evidence in favor of meningitis. In a case of pneumococcus meningitis under my observation recently this neck sign was the only one of the usual signs of meningitis present; even lumbar puncture gave negative results.

Treatment: In this case it was considered best not to resort to a lumbar puncture owing to the weakened state of the baby and to proceed with the usual treatment of the empyema. Accordingly under local anesthesia the seventh intercostal space was incised in the posterior axillary line and two rubber drainage tubes introduced. Cover glass preparations showed the pneumococcus. The operation did not disturb the baby greatly. Six days after operation the Brudzinski neck sign could not be obtained. The improvement of the

baby was extremely slow and except that it was not so restless was scarcely noticeable. After four weeks there was still a profuse discharge from the chest wound. A resort was then made to pneumococcus vaccine, 400 million being injected every other day for five doses. The result was as prompt as that following the use of staphylococcus vaccine in furunculosis. The problem now was to cope with the nutritional disturbance which existed in an exaggerated form, as the empyema had been cured. Breast milk alone is not sufficient to restore the weight of these marantic infants. Two feedings of malt² soup prepared with extract of malt, flour, carbonate of potash and cow's milk were resorted to with prompt improvement. In the course of two months the baby had completely recovered.

This case was especially interesting for the following reasons: Recovery of an empyema which had existed at least one month in an infant 6 months of age; the mortality at this time of life is at least 90 per cent.

The presence of the Brudzinski neck sign; the subsequent course proved that pneumococcal meningitis was very improbable.

Prompt improvement in the purulent discharge after the injection of pneumococcus vaccine.

Recovery from the nutritional disturbance, which had progressed to marasmus subsequent to the administration of malt soup.

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DISCUSSION

D. E. Broderick, Kansas City: The question of empyema is particularly important as applied to children and a diagnosis is often overlooked because our medical men are trained in the diagnosis of adults. We cannot expect general practitioners to make a diagnosis of all diseases of the chest. Few colleges give students opportunities in pediatric work. Those men who depend on a diagnosis without an exploratory puncture are often mistaken. It is not asking too much that we explore the chest more often than we do. Morris, of Boston, has worked that out and he has these cases pretty well under control. It has no consequences in doubtful cases. Dr. Brady's paper is particularly timely. Pediatricists have harped on this question because those babies have been buried without a post-mortem examination and the baby was buried with his chest full of pus. An exploratory puncture is not a difficult task and should be practiced more. First, I want to commend Dr. Brady's paper; it is particularly timely. Second, I desire to emphasize the importance of a more universal use of the exploratory puncture. Fluid is particularly a good medium for transmission of sound. If we do an exploratory puncture we will save a good many of these cases.

Julius Brady, closing: I want to thank Dr. Broderick for his remarks and call attention to the fact that in cases where we make a puncture without getting results we should resort to the x-ray. Dr. Carman, of St. Louis, has been very successful in taking pictures of this kind and in distinguishing between a thickened pleura or lung and an exudate.

SURGERY OF THE FEMALE URETHRA *

FRED. J. TAUSSIG, M.D.

ST. LOUIS

A more descriptive title to this paper would be "Chapters in the Surgery of the Female Urethra," for it is not my intention to cover the entire field, but only to take up briefly three of the problems that have specially interested me. They deal with (1) the surgery of chronic skenitis; (2) the

* Brady: Jour. Am. Med. Assn., March 16, 1912.

* Read in the Surgical Section of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting held at Sedalia, May 21-23, 1912.

1. Arch. Ped., August, 1910.

treatment of urethral cancer; (3) the relief and cure of urinary incontinence due to actual loss of tissue or support in the urethra.

Chronic Skenitis.—When we consider the important rôle played by Skene's ducts in the perpetuation of a gonorrheal infection in the female, it is surprising how little attention is paid to the treatment of these passages. Skene's ducts run parallel to the urethra for a distance of $\frac{1}{2}$ cm., and have their orifice just internal to the meatus urinarius. When acutely inflamed it is best to employ no surgical measures, unless a large abscess develops requiring incision. It is the chronic inflammation, with its resultant accumulation of muco-pus discharging at intervals, that claims our special attention. Only too frequently the symptoms of frequent painful urination are attributed to a

ful and has the advantage of being self-retaining, thus avoiding the necessity of an assistant. I dwell specially on the exposure of these openings of the ducts, because in chronic skenitis our great problem is to prevent retention of infectious material. The minute size of the openings renders this especially liable to happen and makes it very difficult to inject medicines. Ordinarily, I use a medicine dropper whose tip has been drawn out to a fine point, and inject from 10 to 20 per cent. silver nitrate solution into the duct. In some instances these injections have given relief, but in the majority I have found it necessary, in addition thereto, to slit open the ducts with a fine scissors, to prevent retention of the discharge. Such a procedure can very well be done under local anesthesia in the office. Where the ducts have been dilated to form a retention cyst by retained muco-pus, it is best to dissect them out under a general anesthetic. I should advise the removal of both ducts on such an occasion as the opposite side is apt later to become the seat of a similar infection.

Cancer of the Urethra.—It has been my lot to see an unusual number of cases of primary urethral cancer, largely owing to the extensive material that presented itself in my service at the Barnard Free Skin and Cancer Hospital. There have been four in all. I have not included in this number two cases of vulvar carcinoma, one of vaginal carcinoma and about five or six cervical cancers in which the urethra was secondarily involved by extension from the surrounding structures.

The four cases of primary urethral or peri-urethral cancer are as follows:

CASE 1.—Mrs. M., 45 years old, was operated on by me in 1899, for retroverted uterus and relaxed pelvic floor. At the time I noted a caruncle of the urethra. Four years later I saw her again and found a cancer at the orifice of the urethra, one inch in diameter. Her only symptom was a slight bloody discharge for the previous two months. Radical operation with removal of inguinal and femoral glands (Dr. Crossen). Nine months later recurrence in left deep inguinal glands. Secondary operation. X-ray treatment at the Barnard Hospital without relief. Death from distant metastases one and a half years after beginning of disease. No local recurrence.

CASE 2.—Advanced case of urethral cancer involving clitoris and vestibulum vaginae in a patient 59 years old. Radical operation on April 4, 1911. Local recurrence seven months later under left pubic arch involving periosteum. Severe pains at site of recurrence requiring morphin in large doses. In December, 1911, I resected the left pubic nerve and did a palliative operation on the recurrent area. Since then there has been practically no pain, although the local recurrence presents a large crater. Of further interest also is a small implantation metastasis in the incision made for the nerve resection. The history of the patient showed that at the very onset of her symptoms, six months previous to her coming to my charge, she had consulted a physician who advised only local measures.

CASE 3.—In a patient 59 years old, having an advanced cervical cancer there were found many condylo-



Fig. 1.—Outerbridge's intra-uterine pessary used as a urethral retractor to expose the openings of Skene's ducts for treatment.

cystitis and medicinal measures employed without avail. Examination of such a case will reveal the fact that on pressure laterally to the urethra a quantity of pus or mucopus can be squeezed out. If, furthermore, the opening of Skene's ducts be exposed they will be seen to pout and be reddened. The exposure of these ducts in multiparous women is often accomplished by simply drawing the edges of the meatus apart. As a rule, however, instruments will be necessary to expose them properly. Hummer suggests the use of a bent hair-pin. I have had better use of an Outerbridge intra-uterine pessary for this purpose, as shown in the accompanying picture (Fig. 1). It gives the required exposure, is not pain-

mata accuminata about the external genitals, one of these at the meatus was unusually large, hard and bled easily. Local removal of growth together with vaginal hysterectomy on June 19, 1909. Microscopic examination of the urethral growth showed a beginning malignancy, possibly an implantation metastasis from the cervical cancer. The patient doubtless died from the cervical cancer before there was any time for local recurrence about the urethra.

CASE 4.—An early case of cancer of the urethra in a woman 60 years old, whose only symptoms were slight burning on urination and an occasional bloody discharge for several weeks. Examination revealed evidence of a chronic urethritis and at the lower border of the meatus a small hard infiltration one-half inch in diameter, friable and bleeding readily on touching. A small excised piece showed a beginning squamous celled carcinoma. On July 21, 1910, excision of the entire urethra, labia minora and clitoris, together with the tributary inguinal and femoral glands on both sides. Up to the present time, almost two years since the primary operation, there has been no recurrence. The resultant urinary incontinence required three plastic operations before relief was obtained.

In Case No. 3 the extensive cervical cancer made it inadvisable to do more than a palliative resection of the upper half of the urethra; in the remaining three patients, however, a typical radical operation was carried out. This consisted of a wide excision of the tissues about the urethra, including the clitoris, labia minora, vestibulum vaginae and upper part of the anterior vaginal wall. Going somewhat deeper I dissected out all the tissue lying between the two descending rami of the pubic bones, including the bulbs of the vagina, the crura of the clitoris and the muscular tissue adjoining these parts. Finally the urethra itself was cut off close to its entrance into the bladder, including the larger portion of the sphincter urethrae muscle. The tributary inguinal and femoral lymph glands on both sides were then dissected out with their surrounding connective tissue. It is better, I believe, to start the operation with the removal of the lymph glands although I have myself thus far not employed such a technic, as the danger of infection is thereby lessened.

We now come to the most interesting and also most difficult portion of the operation, the building up of a new urethra. The first step in this procedure is the making of an artificial vesico-vaginal fistula at a point about two or three cms. beyond the neck of the bladder. Into this fistula a small rubber tube is sewed, thus draining the bladder of urine and keeping the new formed urethra completely at rest. This tube is usually removed about the sixth or seventh day, and the fistula ordinarily closes spontaneously by the end of two weeks. The next step will be to attempt the building up of a new internal sphincter. This can be accomplished by following the suggestion of Crossen, sewing together with a purse-string suture several layers of the detrusor muscle surrounding the neck of the bladder. Finally it is of considerable importance to reattach the re-

maining stump of the urethra close to the tissues underneath the symphysis.

In spite of all these efforts to avoid urinary incontinence, I have never been able to obtain more than partial control of the flow of urine. In Cases 1 and 2 this absence of control was not sufficient to justify a secondary operation. In Case 3 the sphincter urethra was not removed, and hence, no incontinence was to be expected. In Case 4 several operations had to be done before the incontinence was cured. The technic in the relief of such incontinence will be considered in the next chapter.

The Relief and Cure of Urinary Incontinence.—I will leave out of consideration here that form of urinary incontinence due to fistulas or to interference with the nervous mechanism of the bladder, and take up only the incontinence due to loss of tissue or support in the urethra. As etiological factors we have tears through the sphincter urethra at confinement, the destruction of the urethra by an ulcerative process, such as tertiary syphilis, or the excision of the urethra for cancer as just described. In some instances the incontinence of urine will be associated with a partial or complete prolapse of the uterus and bladder. In these patients the tugging away of the prolapsed organs on the weakened sphincter is mainly responsible for the incontinence and the replacement of the organs, either temporarily by a suitable pessary, or permanently by operative measures, will be sufficient to overcome the absence of sphincteric control. In a certain percentage of cases, however, the injury to the sphincter urethra is too great to be thus relieved: here operative measures should be employed unless there be a contra-indication. In one of my patients, referred by Dr. J. C. Falk, there was present an active tuberculosis of the lungs making operation inadvisable. This poor woman had a persistent cough that caused practically all the urine to be passed involuntarily. Almost instant relief was obtained when I introduced a large sized Albert Smith pessary, in which the ordinary downward curve at the urethra was changed to an upward curve pressing moderately against the sphincter muscle. Complete relief was obtained by this means until her death about six months later from the tuberculous disease. Kelly has devised a special pessary for such cases.

Numerous have been the suggestions made for the operative relief of urinary incontinence, but in general we may classify them under three heads: 1. Operations to strengthen a weakened sphincter urethrae. 2. Operations to restore in continuity a urethra which has been opened up either by tears or ulcerative processes. 3. Operations in which the entire urethra has been removed or is absent and a new urethra has to be formed.

In the first group of cases in which the absence of muscular control is the important feature, I

have had two operative experiences, both of which were successful. The operation of Gersuny, which consists of dissecting free the urethra and after twisting it through an angle of 360° , or even more, fastening it in that position, has never appealed to me. I have watched others use it with poor success and have hesitated to employ it myself. Kelly prefers the resection of a portion of the urethra around the internal sphincter, but this also has seemed to me to be hardly necessary in the majority of cases. Wherever possible, better results are obtained by leaving the urethral mucosa intact, so that, even if the stitches loosen up a little, no urine will flow over the wound surface. By a careful dissection and suture of the muscular and fascial elements surrounding the urethra it will almost always be possible to narrow the urethra at the internal orifice sufficiently to give the weakened muscular elements a better leverage for their sphincter control. The triangular ligament, which is present in a modified form in the female can be utilized for this purpose. One of the two patients on whom I operated in this manner without directly opening the urethral canal, has been under my observation for almost two years and is permanently cured of her incontinence.

The second group of cases, in which the urethra gaps open and presents an anterior and posterior lip similar in appearance to a bilaterally torn cervix, requires a somewhat different technic. In the one patient with this condition on whom I operated, the etiological factor was tertiary syphilitic ulceration, the ulcers had healed and the tissues were in fairly good condition for a plastic operation. The technic of this plastic was in every respect similar to that employed in the repair of a bilateral cervical tear. In addition thereto a few supporting sutures were taken shortening the sphincter urethra. The case made a good recovery and when she left the hospital, one month after the operation, had no more urinary incontinence.

It is the third group in which the entire urethra is gone that presents the most difficult, and at times almost hopeless, problems in plastic surgery. Under the head of cancer of the urethra I have briefly gone into some of these difficulties. Case 4 under that head was the patient on whom, after three failures, I finally obtained a satisfactory control of urination.

The primary operation for removal of the urethral cancer was done July 21, 1910. Practically complete incontinence of urine developed thereafter. On Oct. 25, 1910, the first attempt was made to build up a new urethra. A flap of the anterior vaginal wall beneath the urethral opening was dissected off, pulled through a slit in the tissues above the urethra and fastened there by a few sutures, as shown in the accompanying figure. This operation seemed at first to give the patient better control, but later the

sutures pulled through and ineontinence returned. In the second operation, on Dec. 27, 1910, I attempted to form a new urethra by burrowing a canal through the soft tissues over the symphysis with a forceps and keeping a catheter in this canal leading into the bladder. The old meatus was sutured to the lower opening of the new canal. The catheter was left in place for ten days. The principle involved in this operation was similar to that for the creation of a new urethra in malformation of the penis with partial hypospadias. This operation also proved a failure, owing to the necrosis caused by pressure of the catheter. It should not be forgotten that the patient was at this time 61 years of age and in poor general condition. The third and final operation was performed April 22, 1911, nine months after the primary removal of the growth.

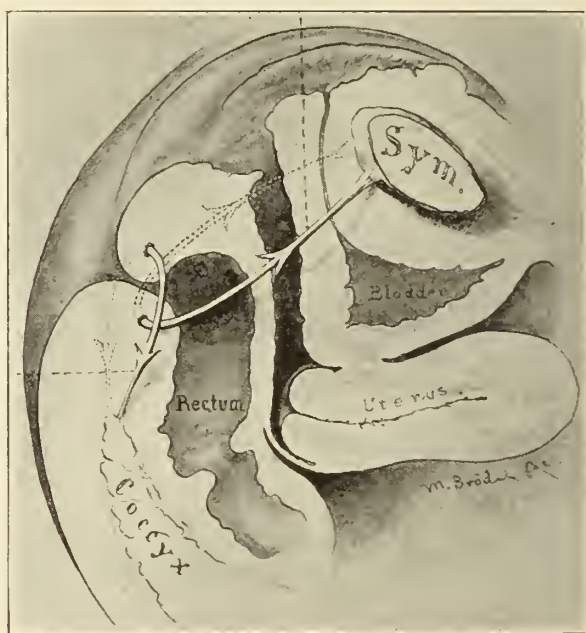


Fig. 2.—Diagrammatic sketch showing the action of the levator ani muscle in compressing the urethra (Kelly).

I now employed a somewhat different technic. I began by again dissecting an elongated flap from the anterior vaginal wall beneath the urethral opening. Directly above the urethra the vestibular mucosa lay in a sort of groove. Dissecting free the edges of this mucosa I utilized it as the upper wall of the new urethra, brought forward the vaginal flap, and fastened it to the tissues of this groove, thus forming the lower wall of the new urethra. Now the surrounding tissues were sufficiently freed to enable them to be sewed together in the median line, thus completely covering the new formed urethra. The urine was again drained through an artificial vesico-vaginal fistula for a week. Although at times there was partial incontinence of urine, the final result was

very satisfactory. The patient was able to hold from 8 to 10 ounces of urine at a time and only had some overflow on coughing or lifting.

In all this operative work for the relief of incontinence I have been impressed by the additional benefit secured by a high perineoplastic with suture of the levator ani muscle. From the accompanying diagram it can be clearly seen how much of a factor the levator ani muscle can be in control of urination. I have repeatedly seen cases in which the urinary incontinence only became evident when a posterior retractor was introduced into the vagina and the levator ani muscle pulled away from the urethra.

To summarize, the essentials of success in plastic surgery for the relief of incontinence are: (1) the temporary formation of a vesico-vaginal fistula; (2) firm support by the levator ani muscle through additional sutures; (3) reinforcement of the sphincter urethra muscle by bringing together the surrounding tissues of the triangular ligament; (4) the formation of a new urethra, when necessary, by flaps from the surrounding vaginal and vestibular tissue.

THE PRINCIPLES UNDERLYING THE TREATMENT OF GONORRHEAL INFECTIONS *

JOHN W. MARCHILDON, M.D.

ST. LOUIS

Gonorrheal infections, which are the most wide-spread and the most common of the venereal diseases owing to their pathological conditions, present great difficulties in therapy. That their treatment has been very largely empirical in recent years is to be deplored and may result from the lack of attention which this infectious disease has received, notwithstanding the fact that its ravages are so extreme and far-reaching. That more attention has been given to the surgery of the genito-urinary tract and to the study of the surgical treatment of genito-urinary diseases than to the medical aspect of genito-urinary diseases, especially gonorrheal infections, the most common, wide-spread and destructive of all, is quite readily seen. In fact, most genito-urinary surgeons in their practice go so far almost as to feel that the treatment of gonorrhea is beneath them, because such treatment is so ineffective and their results are so unsatisfactory that they are led to give their time and energy to the more lucrative and more satisfactory field, the surgical treatment of genito-urinary diseases.

The principles involved in the treatment of gonorrheal infections, which may be laid down here, apply to all stages of the disease and to all conditions of the patient. It is not consistent

for these suggestions to be complete and to cover every case; they may, however, be followed in every instance with all patients. These principles of treatment of gonorrheal infections are to be carried out only after the patient has been carefully studied, and the most careful physical, instrumental, microscopical and serological examinations have been completed as indicated, and a diagnosis of the condition present in the patient has been made. All the means necessary to obtain as great an amount of information as possible about the condition of the patient should be resorted to. One of the most recent methods which I employ is the complement-fixation test.

Quite recently the complement-fixation test of Bordet and Gengou has been applied to the study of the serum of gonorrheal patients which has led to certain interesting facts that give us a greater knowledge of the character of these infections. This principle of complement fixation, which is the same as that on which the Wassermann reaction is based, can be admirably used in the identification of microorganisms. It has been shown, for example, that the gonococcus of Neisser is not a single organism but is a group of organisms, just the same as we have a typhoid group and a colon group. This means that we have different strains of gonococci and that antisera differ in their power to bind complement according to the strain used in immunization. This test, when applied to the blood-serum of patients infected with gonorrhea, it is to be hoped, will be of great practical value. It is certain, we now know, that the serum of patients with acute urethritis reacts negatively. In chronic gonorrheal infections the results as yet are not certain; however, we know that many cases of chronic gonorrheal infection give a positive reaction. Just how far this can be relied on for the treatment of patients is uncertain. It is interesting to know that by treating gonorrheics with gonococcic vaccines a positive reaction is produced in the blood-serum. If one may conclude that a positive reaction means that there still exists a focus of living gonococci somewhere in the body, and that by a negative reaction there are no foci of gonococci in the body, and therefore the patient is cured, this test will be of greatest importance in the diagnosis and care of patients. In other words, if a positive reaction is given in men and women it would mean that such individuals are not cured and are still capable of infecting others. The importance of this in connection with marriage is self-evident; and the importance of this test in the treatment of gonorrheal infections can hardly be overestimated because, when taken in connection with the patient, it would reveal the true nature of the disease. For example, if a patient with shreds in the urine gives a positive complement-fixation reaction and by milking the

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prostate and making careful microscopic preparations one could, by diligent search, detect gonococci, more evidence would be had in the study of the case. It is well known that gonococci may lie dormant in the prostate gland. Gonococci or other bacteria, e. g., *Bacillus coli*, may be present in the gland for years without evoking any marked secretion or disturbance.

It is too early to draw practical conclusions from this reaction. The reaction is difficult to make and the materials prepared only after great labor. I have used antigen for experimental purposes. It is interesting to note that it loses its potency when exposed to the air, and requires titration before every reaction is made. I have found this reaction of value in cases of chronic gonorrheal urethritis and prostatitis, gonorrheal epididymitis and rheumatism. In the light of our present knowledge I consider this reaction of complement-fixation in gonorrhea to be necessary for the intelligent practice of genito-urinary medicine.

The first and most essential principle in the treatment of gonorrheal infection is absolute rest in bed, preferably in the recumbent position. It is a most imperative measure for the healing of gonorrheal infections, acute as well as chronic. If an ordinary patient with acute gonorrhea is placed in bed, the gonorrhea, as a rule, tends to get well of its own accord without any medication. The majority of patients are unwilling or unable to submit to this. The great advantages to be derived from rest in bed should be carefully explained to the patient and in case he refuses this measure he should be enjoined to avoid all muscular exertion.

The gonococcus is very susceptible to heat. Even a high temperature occurring in other infectious diseases may influence favorably gonorrheal infections. The gonococcus is extremely susceptible to temperatures above 42 C. and is killed on exposure to 52 C. In the treatment of gonorrheal infections it is frequently possible to apply a high degree of heat to the affected part. This susceptibility to heat is quite characteristic for the gonococcus as most microorganisms require a much higher temperature to be killed. Therefore, in gonorrheal infections, if sufficient heat can be applied to the affected part, the microorganisms will be killed. For this purpose hot applications, fomentations, sitzbaths, moist heat and dry heat are to be advised with such infections.

The internal medicine which I advise and carry out at the Alexian Brothers' Hospital is the routine administration of hexamethyltetramine in 5 grain doses every three hours in all cases. In acute gonorrheal infections, with ardor urinae, *misturæ Lafayette* is of value. Saline catharsis is the rule in all gonorrheal infections.

Besides being susceptible to heat the gonococcus is very susceptible to salts of silver. There are many of these salts and they are all extremely useful. One of the newer ones, cargentos, containing 50 per cent. silver, is very efficacious. It is still an unsettled question as to whether injections of these silver salts should be used in acute urethritis or whether one should wait until the acute symptoms have subsided. In my own practice I prefer to use, during the acute stage, heat, and as soon as the acute symptoms have subsided, the intra-urethral injections of various silver salts.

Local treatment is to be applied in acute and chronic, anterior and posterior urethritis under all conditions, except at the height of the disease in acute conditions. In the light of our present knowledge the newer salts of silver are best and they should be used in as great concentration as possible without causing pain, and the injection is best made with a glass syringe which has changeable rubber tips. The syringe and rubber tips may be sterilized by boiling and a sterile tip used with each patient for each injection. It is important that injections be made only by the physician. The technic to be followed out is the same as the usual routine and the amount of fluid injected may be several ounces and should be retained by the patient holding the meatus closed with the finger. The unskillfulness of patients in giving injections to themselves is such that it is necessary for the injection to be given by the physician for the nervousness and lack of skill frequently interferes with the patient retaining the injection for any length of time. An injection should be retained in the urethra at least from ten to fifteen minutes. In order to accomplish this the patient should hold the meatus compressed. Such injections when properly and carefully given should be repeated daily.

I have used all the various kinds of irrigations in cases of gonorrheal infections. My results, like those of many others, have been unsatisfactory, so much so, that in recent years I have discontinued irrigations entirely. From the nature of gonorrheal infections I do not understand how anything could be expected from irrigating the urethra and bladder with large quantities of antiseptic fluids. In speaking of this, Belfield tersely puts it: "The gonococci are not sitting on the epithelial cells waiting for the injection or for the irrigation. No, they are down in the tissues, between the cells, in the lymphatic and connective tissues and are not reached nor harmed by antiseptic fluids flowing over the surface." Most careful and extensive work carried out in this field by many investigators has shown that cases of gonorrhea get along just as well and perhaps better without any irrigation at all than with irrigation.

The specific treatment of gonorrhea has not yielded such excellent results as a general understanding of such infection would lead one to expect. Specific treatment by passive immunization, that is, by the injection of a ready-made substance or serum which protects, has had no effect in alleviating gonorrhea and its complications. The serum of Torrey and others has shown such varied reports as yet to allow of no conclusion.

The vaccine treatment of gonorrheal infections by injection of dead gonococci has yielded better results than treatment with serums. The production of active immunity by the injection of killed gonococci is to be particularly recommended in the complications of gonorrhea such as epididymitis, arthritis and prostatitis. I have more recently obtained better results by injecting larger amounts of the vaccine than is recommended. When the injections are given deep into the gluteal region they are quite painless. Following such injection the urine must be watched, because a toxic nephritis sometimes follows. Where albumin has occurred in the urine following such injections it disappears when the injections are left off. The injection of these vaccines is not contra-indicated in patients running a temperature. Frequently such injections may better the condition and cause a fall in temperature. The injection of the vaccine itself sometimes produces a rise in temperature which is of short duration. The tendency in the use of gonorrheal vaccines is to increase the size of the dosage. The dose ordinarily employed at present, which is from two to four times that formerly used, is apparently producing more satisfactory results.

The experience derived from the use of salvarsan in the treatment of syphilis has caused the development of a similar specific therapy for the treatment of gonorrheal infections. This treatment consists in the intravenous injection of salts of silver, especially collargol or argentum colloidal. The basis of this treatment rests on the fact that gonococci are extremely susceptible to the salts of silver and it is rational to believe that if such silver salts are brought in contact with the microorganisms anywhere in the body through the blood-stream they would be killed and the infective process terminated. It is clear that in the complications of gonorrhea, such as epididymitis, rheumatism, etc., there could be no more logical method of chemical therapy than by the route of the circulation.

The method of the administration of collargol by the intravenous route for the treatment of gonorrheal infections is quite simple. Collargol is made up in a 1 per cent. solution in distilled water or in physiologic salt solution. The water should be freshly distilled for the reason, as was pointed out in connection with the use of salvarsan, that old distilled water contains micro-

organisms and the proteins from their dead bodies produce a rise in temperature. This solution of collargol must be sterile. The sterilization may be accomplished by heating to 100 C. for thirty minutes. For an ordinary dose 10 c.c. is injected and at least three minutes should be consumed each time in giving an injection. The injections are given into the vein of the forearm and may be repeated daily. The size of the dose and its repetition may be varied, depending on the body-weight, the condition of the patient, and the response to the injection.

The apparatus which may be advised for the administration of collargol intravenously is the same which I have used for giving salvarsan, with the exception that the container or bottle may be of smaller size. The results of this treatment of gonorrheal infections have been of such value that the method has found some favor in Germany.

Humboldt Building.

DISCUSSION

Dr. T. M. Paul, St. Joseph: I don't like the way the doctor approaches the subject. Gonorrheas should be divided into two classes: Those who come to the physician as soon as the attack begins, and those who come only after the efforts of their friends, the corner druggist, the patent medicine manufacturer and the advertising quack have failed.

If a patient comes as soon as he discovers his discharge, it may be possible to limit the attack to the anterior urethra. To this end, the patient should not only abstain from sexual intercourse, but also from lascivious thoughts inducing sexual excitement. In these cases, hand injections, in increasing strength, to stimulate the mucosa as to call forth phagocytes and increase the discharge when it has begun to diminish. In this manner, the out-wandering leukocytes, ascending to the surface through the deeper layers of the mucosa and remote gland tubules, find, and devour, gonococci in positions to which no drug will penetrate. If a case can be conducted to its termination on this basis, I claim the patient has had only half an attack.

Cases in which the posterior urethra is involved when the patient presents himself, or in which the infection goes back in spite of every effort of the physician to prevent its so doing, have to be irrigated. The doctor condemns irrigations but I know of no better treatment for posterior urethritis. The doctor does not speak of prostatic massage, yet this form of treatment is highly essential in all cases in which there is a prostatic folliculitis.

Gonococci may travel through the blood-vessels from the urethra to a joint or heart valve, but they do not remain long in the blood-current, hence I do not understand the doctor's reason for advocating intravenous injections for gonorrhea.

Dr. J. W. Marchildon, closing: I was very careful in my paper to recommend all the procedures except the last one mentioned. The cases that delay a short time, that are irrigated one, two or six months later are still receiving irrigation. This treatment may be all right but it certainly does not appear to be. This refers in general practice only to the urethra and the bladder and that is the reason why the treatment of gonorrheal infections must be treated in some other way.

THE TRAINING OF PHYSICIANS FOR SERVICE IN THE HOSPITALS FOR THE INSANE *

H. UNTERBERG, M.D.

ST. LOUIS

When invited to prepare a paper to be read before this Association on "The Training of Physicians for Service in the Hospitals for the Insane," I readily accepted the invitation, as I believe that in the proper training of the so-called asylum physician lies our real hope for improvement in the management of our hospitals for the insane.

There can be no doubt that too frequent changes in the personnel of the official staff, particularly of its guiding spirit or superintendent, are demoralizing and a setback to a hospital for the insane, and when these changes are made as frequently as has been the case during the past five years in Missouri the great disadvantage to these hospitals is self-evident.

It is really remarkable that the state which gives the general practitioner such great power over the liberty, health and happiness of its citizens should require of him practically no knowledge of insanity.

Our superintendents of the state hospitals for the insane, with few exceptions, have been men without any special training in the line of work they pursue, and their experience is obtained at the expense of the institutions and patients under their care. This experience is molded by a board of managers, generally more inexperienced, to whom the superintendent is subservient and by whose sufferance he retains his appointment.

We have had a great many disturbing clashes in recent years between superintendents and their boards from which the superintendent invariably came out second best, maligned and besmirched. These disturbances are sometimes brought on by a political board desiring to undo work of their own doing, for personal or political reasons, and sometimes because the superintendent, being insufficiently trained and inexperienced, cannot solve the many difficult problems that are daily put before him. The board of managers, employees and the general public realize that general practitioners placed in charge of hospitals for the insane, are "green hands," and are slow in granting that confidence and respect so necessary to harmony.

The work of the asylum physician should be a life work more special and distinct than any other special branch of medicine, and for the best interests of the public at large, the institutions themselves and the medical profession in general, only specially trained men should occupy these positions of such extreme importance.

Dr. Chas. Whitney Page, in his book, "The Care of the Insane and Hospital Management," says:

Should the candidate for the superintendency possess acknowledged, even conspicuous, ability in any particular field, medical, commercial or sociologic, such preeminence does not signify that he possesses the ability to organize hospital work successfully and maintain proper discipline. It is a much safer policy to fill the position, with its various lines of duty, by appointing an evenly balanced, all-around man, who in addition to the requisite medical knowledge and business capability, is blessed with abundant common sense, quick perception, a ready judgment and a passion for justice; for not only must a superintendent see that the patients receive the best medical care, that hospital funds are prudently handled, that employees conduct themselves properly, but in him should reside these finer qualities of mind and heart—patience, sympathy, courage, enthusiasm, etc.—since such attributes of higher manhood must characterize his administration in order that his life and official influence may tone and energize the inter-relations of the whole hospital community.

Dr. Henry M. Hurd, in commenting on another portion of Dr. Page's book, says:

The author also recognizes the wisdom of promoting assistant medical officers to fill such positions, whenever practicable, as better calculated to continue the policy of a successful institution than to appoint a man who has had little or no previous experience in psychiatry.

With this introduction I will attempt to tell you briefly what I consider the proper qualifications and training for physicians for service in state hospitals for the insane. The qualities required of a good asylum physician are: Good mental and physical health; good general medical knowledge; special training in sanitation and hygiene; executive ability; special training in psychiatry and neurology.

The best place where special training in all five of these requisites is obtainable is I believe in a hospital for the insane, and therefore it is my opinion that every physician aspiring to the superintendency of an institution should acquire them in that institution or one similar to it. He should begin with the elementary work of an intern, gradually acquire the more complicated work of an assistant physician and finally reach the complex work of the superintendent. This is in accordance with the merit system in vogue in some of the more progressive states, and which Dr. M. A. Bliss of St. Louis is so warmly advocating in our own state.

A physician undertaking asylum work should be in first-class physical condition and endowed with an abundance of energy. The confining nature of the work, its need for concentration, will soon tell on those not fit. Mentally he should be stable and clear and capable of relaxing and throwing off care. One inclined to any of the functional neuroses or psychoses should abstain from this kind of work. He should be sympathetic, but not allow an overabundance of sentimentality to impair his judgment.

* Read in the Medical Section of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

As the insane are just as prone (if not more so) to the ordinary diseases that affect the rest of humanity, a general knowledge of the practice of medicine is indispensable.

The asylum physician's knowledge of sanitation and hygiene should be as great as possible. The problems he must solve along these lines are of terrific importance and come often. Some men have natural executive ability, are masterful and understand the art of handling other men. Tact and the training of judgment are things that can be acquired. In studying the perversions of judgment in patients, in analyzing the acts of superiors, as well as being careful of your own, one may acquire what is needed in this direction. All of the above requirements are such as may be obtained in any good regular practitioner, but the fifth of my requisites should be acquired in a hospital for the insane. Kraft-Ebing says that a knowledge of psychiatry can never be obtained from books. There is no doubt in my mind that this is true. Psychiatry as we practice it is not a science but an art.

Our only knowledge of this art is from clinical observation. We know practically nothing of its pathology. We know so little about the mind, that in spite of millions of words we find in print on the subject our efforts at examination of its disturbances are almost puerile. How many asylum physicians, even those who have a fairly intelligent idea of our modern conception and classifications of insanity, will undertake to examine a patient's mental condition before a body of medical men, without embarrassment and a realization of their inability to demonstrate to others that which by years of observation they can themselves observe and classify? The knowledge thus obtained must be amplified by the experiences of others and from good treatises on the subject before the physician himself can properly use it; but without this actual observation of cases all his reading and discussion will not bring him a proper understanding of psychiatry. A special training in psychiatry is a matter of slow progress and close observation.

The intern, after seeing a great mass of cases, will gradually make large group classifications, then as the distinguishing detail comes out will gradually subdivide his groups until he has formed and understands a classification which is more or less his working table. This will require years of study and attention.

Observation alone will not make a finished man, although it tends to make an original one. Observation should be amplified and directed by reading, not simply what one or two leading men have to say, but by as great a variety as possible. Our present knowledge of psychiatry is not exact enough for any one system to be followed in understanding it.

There are a great many good and trained observers who view the subject from different

sides, and all of whom have made valuable strides in our advancement, but none have or claim to have anything like a full understanding of the subject. This should not deter those who desire to do this work from enlisting and doing their share toward the solution of these problems.

One reason for the lack of progress in our institutions is the lack of incentive to young men to undertake this work. There are few inducements and many deterrents to devoting the needed time to this important branch of medicine.

An expert knowledge of neurology is not an absolute necessity but it is a valuable asset in the armamentarium of the asylum physician.

To recapitulate, I desire to emphasize what I have tried to make clear in the foregoing. The training of physicians for service in the state hospitals for the insane must take place in these institutions. The greatest efficiency can only be obtained by men willing to make it a life work; men who will lay their foundation at the bottom and not in the superstructure.

Century Building.

DISCUSSION

M. P. Overholser, Nevada: I am very glad indeed to see these two subjects brought up before the Medical Association for the reason that the Superintendents of the State Hospitals of Missouri need the cooperation of the medical profession in the accomplishment of some of the reform methods of work which are now being undertaken in our state institutions. There can be no question that public state institutions make more progress where they are eliminated from politics. I believe the conditions are wrong where physicians and superintendents receive these appointments by political influences.

With reference to the training school for attendants and nurses in our state hospitals in Missouri, it is yet an experiment, but we hope to be able at this time, to place this work upon a good foundation which will result in much good in the future. In connection with this work there are few questions which we can discuss more profitably than the question of best methods to adopt to secure more efficient service from the attendants of our state hospitals.

Only recently, through the efforts and cooperation of the State Board of Charities and Corrections, the Board of Managers of the four state hospitals of Missouri, employed a superintendent of nurses, or more properly a superintendent of training school for attendants. This work is a preparatory step to the establishment of a training school for nurses which we hope to open during the coming September.

Miss Sinclair, an accomplished and experienced training school instructor of Newbury State Hospital, Michigan, has been chosen as superintendent. She spends one week in each of these four institutions, giving lectures and demonstrations to the attendants along the various lines of training school work. We believe the training school work will be the means of getting rid of a large number of attendants of our state hospitals, who have been objectionable for various reasons. Attendants who are simply looking for a job and who are not interested in their work, who seek employment at state hospitals simply for the money they can get out of it and for the social pleasures it seems to afford them, are not the kind of attendants our state hospitals should be required to employ to take care of insane patients. Attendants and nurses who are interested in this special line of work for the good that they can

do and who love it as a profession are the kind needed in our state institutions. It has been quite difficult to get this class of material in our state hospitals in this part of the west. We feel that the best inducement which can be offered by our state institutions in seeking to obtain the best material obtainable for state hospital attendants and nurses is by the establishment of modern training school.

We ask the cooperation of the medical profession of our state in the accomplishment of this purpose. We feel that the medical profession can be of great assistance to our state institutions in their efforts to obtain the proper kind of material for the care of these patients, and who are desirous of availing themselves at the same time of an excellent opportunity of receiving the training school work.

II. Unterberg, St. Louis, closing: I want to say that the training of physicians so they may train attendants is of the most importance. The tramp attendant while usually considered a poor attendant is really a very good one on account of his varied experiences under many men. He is usually too smart for a "green" physician to handle and covers up his misdeeds; but under control and closely watched he can perform his duties well.

Engaging a superintendent of instruction for attendants to remain for a limited period at each of the various state institutions, is in my opinion, not a good idea. Your superintendent of instruction must be on the wards constantly to meet emergencies as they arise and show by example, not mere idle words. The duty should be performed by the resident physicians. The training school for attendants should not be considered an innovation. They have been in many institutions for years. Dr. Woodson had one at St. Joseph and Dr. Overholzer, I understand, is organizing one at Nevada.

LESSONS FROM RECENT ADVANCES ON SYPHILIS AND GONORRHEA: THE WASSERMANN REACTION, THE WEIL TEST, THE LUTIN TEST, THE GONORRHEAL COMPLEMENT-FIXATION TEST *

R. B. H. GRADWOHL, M.D.
ST. LOUIS

Though syphilis and gonorrhea were described by the ancients in medicine, but little was known of the etiology of either disease until Neisser, in 1879, described the gonococcus, demonstrating clearly that it was a specific microorganism for a disease which Ricord and his followers had considered as a non-specific mucous membrane catarrh. With syphilis, but little progress was made for centuries, when suddenly, beginning in 1903, one discovery after another followed in comparatively rapid succession until now we stand with a vast mass of valuable data at hand which has greatly assisted our understanding of the nature of this disease, the method of exact diagnosis and surely, sooner or later, will materially help us in the treatment of the same. We may catalogue these discoveries which have given to our modern syphilis investigations exact scientific preciseness, as follows:

First, the animal experiments of Metchnikoff and Roux, who, in 1903, demonstrated the possibility of inoculating apes with syphilis. Second, the discovery of the *Spirochata pallida* by Schaudinn and Hoffmann in 1905. Third, the method of serodiagnosis of syphilis brought out by Wassermann, Neisser and Bruck in 1906. Fourth, the discovery of salvarsan by Ehrlich in 1911. Fifth, the discovery by Noguchi, in 1911, of the method of cultivation of the *Spirochata pallida* and the use of a dead culture of the same for purposes of diagnosis by means of a eutaneous reaction.

Besides these specific discoveries in the last year or two numerous other smaller aids to our knowledge of the life history of the *spirochata* have been brought out. It will be my purpose here to refer briefly to the advances that have been made in the study of the manner of diagnosing this disease.

Our up-to-date knowledge of the pathology of this disease may be said to have received its greatest impetus on July 28, 1903, when Metchnikoff and Roux demonstrated before the Paris Academy of Sciences an unquestioned example of inoculation with syphilis: a 2-year-old female chimpanzee, inoculated on June 12, 1903, in the prepuce of the clitoris, with the secretion of a hard chancre, developed on July 8, 1903, twenty-six days after the inoculation, a small blister, with some erosion, followed by typical chancre formation, with glandular swelling; fifty-six days later there showed on the abdomen a number of typical papules. Three months later the animal died with enlarged glands and spleen. Since that time a number of others have demonstrated the same fact on monkeys as well as on other animals. The favorite method with which I have personally had the best success in following up this experimental inoculation is the introduction of luetic material into the testicles of rabbits, with the production of a syphilitic orchitis. I might add that the material which can be used for this animal inoculation work may come from any kind of syphilitic lesion, from primary sores, from secondary or tertiary manifestations, from the blood or sperma of syphilitics, from primary or secondary lymph-glands, from organs, blood or eoryza secretion of congenitally syphilitic children, from the spleen, the bone marrow, the testicles or other glandular structures. The very latest word that we have had on the subject is the record of Uhlenhuth and Mulzer's experiments, where blood of a syphilitis in the secondary stage, blood of another in the tertiary stage and the semen of a secondary stage syphilitic were injected into rabbits' testicles with the production of a typical syphilitic orchitis. We must accept, therefore, the fact that syphilis may be conveyed from man to lower animals, particularly the monkey and the rabbit.

* Read in the Medical Section of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

Closely following on the discovery of the inoculability of syphilitic material into animals, came Schaudinn and Hoffmann's discovery of the *S. pallida* in syphilitic lesions. These organisms may be demonstrated by staining them with Giemsa's solution, which is azur II-eosin 3.0 g., azur II 0.8 g., glycerin 250.0, methyl alcohol 250.0.

The stain may be diluted with equal parts of water, allowed to stain one hour, dried and examined. Another method is by the use of India ink—a simple method, but not altogether reliable.

The best of all methods is by the use of the dark field attachment to the microscope. The latest apparatus of this kind consists of a dark field built into an Abbe condenser which is slipped into the microscope very easily and quickly. Placing a drop of immersion oil over and under the glass slide containing the preparation, we can see the living spirochetes without any great difficulty. We need for this purpose strong illumination in the way of a special arc lamp. Closely following the discovery of the spirochete has come Noguchi's method of cultivating them; this is simple to describe, yet difficult to carry out: tubes of about twice the length of an ordinary culture tube are partially filled with a culture medium consisting of two parts of agar to one of ascitic fluid. In the bottom of the tube is placed a small piece of sterile rabbit kidney. On top of the culture medium we float a few cubic centimeters of sterile paraffin oil to preserve anaerobiosis and to keep the medium from drying out. Inoculate deep down into the bottom of the tube and place in the incubator for a few days. You will get a growth of the *S. pallida* mixed with other organisms which may be removed by a process of purification similar in some aspects to that used in routine laboratory work. Noguchi is at present working up the differentiation of the *S. pallida* from the *S. refringens* and the *S. dentium*. One differential point between the *pallida* and *refringens-dentium* groups is the fact that the *pallida* has no bad odor to the tube, whereas the *refringens* and the *dentium* smell badly. Other points of morphological difference may also be pointed out. It is sufficient in this place to say that we are coming to the point where cultivations of the specific spirochete may be carried out in any well-regulated laboratory.

The next important epoch that has occurred in our syphilis investigation was the discovery of the so-called Wassermann reaction. A short article appeared in the May 10, 1906, number of the *Deutsche medizinische Wochenschrift* by Wassermann, Neisser and Bruck, announcing that they had succeeded in utilizing the already known Bordet-Gengou complement fixation phenomenon as a means of making a serodiagnosis of syphilis.

The Bordet-Gengou phenomenon of complement fixation depends on the following conditions: First, if you inject a rabbit subcutaneously, intraperitoneally or intravenously, with the corpuscles, washed thoroughly, of any animal such as a sheep, you will develop something in his blood which we call "amboceptor" (substance sensibilitrice) which is specific for the original corpuscles injected, i. e., if you add to a certain amount of sheep corpuscles a certain amount of the rabbit immune serum, in the presence of complement (alexin) which is normally present in bloods, especially in guinea-pig blood, you will see the phenomenon of hemolysis, which means a disintegration of the corpuscular architecture resulting in a clear transparent fluid where before the fluid was cloudy. It might be added here that amboceptor is a substance not changeable in its biologic activities by exposure to heat. It is thermostabile when heated to 56 C. for half hour. "Complement," however, is destroyed by exposure to 56 C. for half hour. It is thermolabile. When we heat sera for purposes of destruction of complement we call this step "inactivation." Any foreign substance which we inject into a rabbit, whether sheep or ox or human blood or bacteria or what not, is known as an "antigen."

The term "antigen" is rather loosely used in our English medical literature. The combination of reagents to demonstrate hemolysis, namely, amboceptor, complement and corpuscles, we term a hemolytic system. If we inactivate blood-serum (amboceptor), thereby destroying its complement, no hemolysis occurs in contact with the specific corpuscles. If we add to such a system a drop of guinea-pig serum, fresh, containing plenty of complement, then hemolysis proceeds rapidly.

The Wassermann reaction, worked out by Wassermann, Neisser and Bruck, takes advantage of the fact that if you mix with a hemolytic system, blood-serum from a specific infectious disease, plus an antigen, that is to say, a solution of the microorganisms causing that disease, these two bodies form a strong combination with complement, destroying or inhibiting its power to assist in hemolysis, so that the hemolytic system is in much the same state as if you had inactivated the amboceptor or had forgotten to supply this inactivated amboceptor with guinea-pig serum. You will have no hemolysis accordingly. To illustrate that phenomenon of complement fixation:

Cholera vibrio (representing an antigen) + Serum of choleraic patient (representing antibodies) + Guinea-pig serum + inactivated hemolytic amboceptor (sheep) + sheep corpuscles =

INHIBITION OF HEMOLYSIS

Applying this to the diagnosis of syphilis, if you mix the serum of a true syphilitic with an antigen extract, plus complement (guinea-pig) plus amboceptor, plus sheep corpuscles, you will

get no hemolysis. If the blood-serum comes from a non-syphilitic individual, there is no binding of complement, the phenomenon of hemolysis ensues, so that at the end of the technic procedure you will have a clear transparent reddish fluid. This is what we term a negative reaction.

Wassermann and his followers at first thought this inhibition of hemolysis in this test was due to an actual combination between an antigenic extract containing the true antigen derived from the bodies of *S. pallida* from syphilitic liver in the presence of the antibodies derived from the syphilitic serum. Yet Porges and Meier in Berlin, Landsteiner in Vienna, Mueller and Potzl, later Levaditi and Yamanouchi, in Paris, as well as many others, have found that you will get the same complement-anchor-phenomenon whether you use luetic liver, normal liver from man or many other animals. Furthermore, these investigators proved that this extract could be made up in alcoholic solution, not necessarily in watery solution, as originally emphasized by Wassermann. Landsteiner, Mueller and Potzl believed the particular antigen power resided in lipid substances, while Porges and Meier believed in the lecithin content of the alcoholic solution as explanatory of the phenomenon. As a result of these investigations, Wassermann amended his first explanation of his reaction, speaking then of the specific substance found in syphilitic serum as a toxin, not an antibody, which could be bound with lecithin to complement. Fleischmann thereon attempted to use cholesterin as antigenic extract. Sachs and Altmann tried sodium oleate; Levaditi and Yamanouchi tried taurocholic and glycocholic sodium combination. These have not been uniformly successful in obtaining the specific reaction. It remained for Noguchi to work out the exact biochemistry of the substance found in human or other animal viscera which bound complement in the presence of true syphilitic serum. He tried out the antigenic, anticomplementary and hemolytic properties of the alcoholic extracts of livers (human and otherwise) from various sources after fractionation by chemical means of such extracts. The substances, insoluble in ether and hot alcohol, are chiefly proteins and salts. The salts (chiefly sodium chlorid) are neither markedly *hemolytic* nor *anticomplementary*, nor do they possess *antigenic* property for the Wassermann reaction. Since, however, the proteins bind complement when mixed with active human sera, a preparation of antigen containing these should not be used with an active serum.

Substances insoluble in ether and soluble in hot alcohol include soaps, cleavage products of proteins and bile salts. The soaps and bile salts are strongly hemolytic and possess little antigenic value. They should, therefore, be eliminated

from antigens for the Wassermann test. Substances soluble in ether, alcohol and acetone include fatty acids, neutral fats, cholesterin and lipoids. They are anticomplementary and hemolytic. They vary much in amount in different preparations and, although antigenic, are on this account undesirable as antigens. Substances insoluble in acetone include *lecithin* and *phosphatids*. The antigen should, therefore, be selected from this fraction. Further, Noguchi has shown that a high antigenic value is associated as a rule with a high iodine value of the acetone-insoluble lipoids of the liver and heart, not, however, of the brain.

The Noguchi method of preparation of an antigenic extract, based on these principles, has been in my hands the most successful. I will not take time to discuss this method more than to say it is simple and quite successful in the end-results: you mince calf liver or heart, or syphilitic liver, if you will, with ten volumes of alcohol, allow the mixture to stand in the incubator for a few days, filter, evaporate down to almost dryness with an electric fan, take up the residue in ether, allow to stand over night in the ice-box, decant the clear fluid, precipitate it with acetone, pour off and discard the supernatant fluid. The sticky substance that remains is the basis for your antigen. Take this up with a small amount of ether, mix with methyl alcohol and store it. Then, when ready to use, mix it with sodium-chlorid solution in the proportion of one to nine; determine its dosage by titration with known normal and known syphilitic sera.

I have devoted this considerable space to the antigenic extract because this is the stumbling-block of most workers in this line. Antigens made in other ways are unreliable: sometimes you catch the proper lecithin and phosphatids, sometimes you do not.

Sometimes the antigenic extract is hemolytic. The Noguchi method comes closest to the ideal method of any that I have tried. The use of watery extract as originally proposed by Wassermann is commendable, but it is subject to rapid deterioration and has no special advantages over the method already described. Where the greatest exactness is desirable possibly the use of both watery and alcoholic extracts should be carried out.

Great differences of opinion exist as to the exact bio-chemical explanation of the Wassermann reaction. Certain it is that the original view of Wassermann must be amended, namely, that the reaction is dependent on the interaction between specific syphilitic antibodies and a solution of the spirochete. We know now that with a solution of a dead culture of the *S. pallida*, grown according to Noguchi's method, and a true syphilitic serum, it is not possible to get the phenomenon of complement fixation. This I believe disposes of the original explanation of

Wassermann. Rather do we incline to the physicochemical theory of explanation, that some substances are thrown out into the blood-stream as a result of the syphilitic invasion and that these substances have the power to bind complement. Bruck and Stern endeavor to entrench themselves on this position by pointing to the fact that during the agonal stage a positive Wassermann is obtainable in a non-syphilitic subject. They claim that the reaction could be made to appear positive in normal sera by mixing them with various organs, as a result of the absorption of lecithin from such organs. They explain the reaction on the assumption that the syphilitic infection produces a degeneration of the tissues with a pouring out of proteid lecithin compounds into the blood and that these substances react physically with similar or identical substances in the antigen, to bind complement. They claim that these substances are found in normal organs, but increase in cases of syphilitic infection.

What information does the Wassermann reaction give us? First, it appears in the primary stage, as early as ten days after the chancre begins. It is present in untreated secondary syphilis almost constantly. It is present in 40 per cent. of the cases of tertiary syphilis. It is present in the so-called parasyphilitic stages, particularly in tabes and paresis. It should be looked for in these parasyphilitics, not only in the blood-serum, but also in the cerebrospinal fluid obtained by lumbar puncture. It may be absent in the blood-serum and may be present in the cerebrospinal fluid. Again there are some conditions of syphilis where the Wassermann reaction is absent temporarily. The use of alcohol seems to make the Wassermann reaction disappear for a time. Again, there is no question but what there is a fluctuation in the degree and presence of the Wassermann reaction, entirely independent of the fact that the patient is not taking treatment of any kind. I have seen several negative reactions in one case, followed in a short time by a strong positive. This should teach us that we should make repeated examinations where we suspect lues. A negative reaction does not mean that the patient is not infected. A succession of negatives cannot properly exclude syphilis. I believe that a positive reaction always means syphilis, because it has been my personal experience never to have seen a positive in any disease other than syphilis.

In some cases Noguchi has helped us out in the diagnosis of a limited number of syphilitics by means of a recent test which he calls the *luetin* test for syphilis. The luetin is a killed culture of the *S. pallida*, injected intradermally into the arm of the patient. If the person has syphilis and he has been infected long enough for his tissues to have become sensitized, then you will get a positive reaction from this luetin injection in the shape of a zone of redness, with papule or

even pustule formation. This reaction occurs only in late secondary and in tertiary cases, never in the primary stage, and rarely, if ever, in the stage of so-called parasyphilis. Inasmuch as the Wassermann is negative in 60 per cent. of tertiary cases, we may confidently hope to find the luetin test present in this group, thereby filling up the gap left by the Wassermann.

It may possibly be taken as the index of cure of the disease if we dare speak aloud such a thing as cure of syphilis. If, for instance, it is found that in a well-treated case the Wassermann remains persistently negative and the luetin after being positive also remains persistently negative, we may perhaps take this as an indication that there is no more syphilitic virus in the system to sensitize the tissues nor is there any more infectious agents to produce the substance responsible for the Wassermann reaction.

In this connection permit me to call attention to another test for syphilis with which I have been working recently, namely, the Weil cobra venom test.

I have an experience of about 150 cases in which I used the Weil test alongside the Wassermann and can speak of the comparative usefulness of the two. This reaction was described by Dr. Richard Weil of the Loomis Laboratory, Cornell University Medical School, New York City. He found that the red blood-cells of syphilitics displayed a degree of resistance against the well-known hemolytic power of cobra venom sufficient to enable him to utilize this fact in a test for syphilis. In other words, the Weil test is one in which we determine the resistance of syphilitic *corpuscles*, whereas we must remember the Wassermann test is for the presence of a specific something in the serum of a syphilitic. It is made by bringing in contact with weak solutions of cobra venom a weak suspension of red cells of the patient who is under investigation. The blood of the patient, 2 c.c. in amount, is received in 2 per cent. sodium citrate solution in 0.9 per cent. sodium chlorid to prevent clotting. This is kept twenty-four hours in the ice-box, washed thoroughly in sodium chlorid solution, made up in a 4 per cent. suspension in sodium chlorid 0.9 per cent. solution. One cubic centimeter of this suspension is mixed with 1 cubic centimeter of a 1:10,000 cobra venom solution, another with a 1:20,000, a 1:30,000 and a 1:40,000, incubated at 37 degrees for one hour, thoroughly shaken and kept in the ice-chest over night. The next day the tubes are shaken and read off after one hour. Cells not hemolyzed at 1:10,000 are strongly positive; cells only moderately hemolyzed at 1:20,000 are positive; cells showing complete hemolysis at 1:20,000 are negative; cells completely destroyed at 1:30,000 are negative, and cells showing complete destruction at 1:40,000 are regarded as extremely susceptible to the venom. The cobra venom solutions are subject

to rapid deterioration unless they are kept constantly frozen.

What is the value and exact status of this test in connection with the diagnosis and prognosis of syphilis? Schwartz, in an article which appeared in the *New York Medical Journal*, Jan. 6, 1912, points out from a series of cases investigated that this test persists longer after treatment than does the Wassermann. He judges the Weil test to be more sensitive than the Wassermann in this respect. He shows that the reaction of complement fixation appears earlier in primary cases than the Weil test; also that the Weil test is not so commonly found positive in early latent cases as the Wassermann. My personal experience with this test shows it to be one that demands a great deal of time and patience and possibly as much technical skill as the Wassermann. It does not appear to have any advantages over the Wassermann so far as earlier appearance goes, as Schwartz has admitted. I have tried it especially in cases of syphilis of the central nervous system in the service of Dr. W. W. Graves of the Alexian Brothers' Hospital. I must confess that it has not been as uniformly successful so far as giving us a positive reaction in these cases as is the Wassermann—where the laboratory corroborated or bore out the clinical symptomatology. In other words, the Weil test will not aid us much in clearing up those early latent syphilitic infections; unfortunately, at times the Wassermann fails us in such cases. I believe it well to use both tests in as many cases as possible.

Of what services have these discoveries been to us in making advances in the treatment of syphilis? I can answer that by saying that we have been able to recognize syphilis earlier and more precisely than ever before, through the means offered to us by these laboratory tests. We can find the spirochete with the dark-field attachment. We can cultivate them under artificial conditions of growth. We can inoculate lower animals with syphilitic material and thus demonstrate the true nature of some obscure conditions. Again, by means of the Wassermann and the Weil tests we can definitely in many cases corroborate clinical symptomatologic syphilitic facts. Again, by means of luetin we can verify clinical symptoms where the other laboratory tests have failed us. In making our diagnosis of syphilis of the central nervous system, we should utilize the four reactions of Nonne, namely, the Wassermann of the blood, the Wassermann of the cerebrospinal fluid, the lymphocyte-count and the Nonne-Appelt globulin test. These are advances which none may gainsay, and which will redound to the credit of those who are working so diligently to-day with the purely experimental side of syphilis.

I should like to add but a few words in regard to the serology of gonorrhea. There are a number of conditions which confront the practitioner

where he is at a loss to say whether this case is or is not gonorrheal in nature. Occasionally, you will have a case of chronic urethritis; you look for the gonococcus and you cannot locate it. You make the Gram-stain and you find a Gram-negative organism. Is this really the gonococcus? you ask yourself. Is it not a fact that there are other Gram-negative organisms which simulate the gonococcus? Yes, this is true. But you can cultivate the gonococcus, some would say. Sometimes you will succeed, sometimes you will not. And perhaps this patient with the chronic urethritis wants to get married and is waiting for your dictum as to whether he still harbors the gonococcus. Again, you may be confronted with the female with a discharge in which among the myriads of bacteria from the vagina you fail to positively identify a gonococcus. Yet this patient is waiting anxiously for an exact diagnosis. Again, you may have a patient with a pus tube and the surgical treatment is largely influenced by the nature of the infectious organisms, whether pus bacteria pure and simple or gonococci. Or you may have an individual with an arthritis, with a history of urethral infection where you cannot find a gonococcus. You want to know at once for purposes of treatment whether he has a gonorrheal arthritis or not. A successful means of clinching the diagnosis in all these conditions has been found by means of a blood reaction, very similar to the Wassermann in syphilis. We call this the gonorrheal complement-fixation test. It is present in all cases of gonorrheal infection where the disease has existed long enough for antibodies to form in the blood, that is, in all cases that have progressed beyond the locality of the cut-off muscle and that have existed over four weeks. The test is made exactly like the Wassermann, excepting we use an antigenic extract here of dead cultures of the gonococcus. It is imperative to use as many strains of the gonococcus as possible, usually twelve in amount. Blood is withdrawn and prepared just as we do it for the Wassermann. A positive is inhibition of hemolysis. A negative is hemolysis full and complete. This test has been found most useful in selected cases. In a paper which I recently read before the American Urological Association in New York City, I narrated the histories of fifty cases in which this test was found eminently useful.

In conclusion I wish to add that the entire value of the serological tests I have outlined depends primarily on the carefulness of the individual workers. Serologic work is a matter of infinite patience and carefulness, more so than most laboratory procedures. There are definite limitations to the tests themselves, there are multitudinous limitations to the capabilities of the workers. It behooves all of us to exercise the greatest amount of technical skill and care in performing this work so that the maximum

amount of real good may be thereby obtained. Better not have any serologic work done at all than have it done in a slatternly manner and be thereby discredited. Eternal vigilance and close critical scrutiny should be the watchword of every clinician in his employment of serologic talent for clinical diagnostic corroboration.

Victoria Building.

MEDICAL ETHICS *

F. R. ANTHONY, M.D.

MARYVILLE, MO.

"Whatsoever ye would that men should do to you, do ye even so to them."—Matthew VII, 12.

Of all the live questions before the medical profession in this era of wonderful advancement and progress, the question of *Medical Ethics* is of the greatest importance to-day. It is the oldest, the most discussed, the worst abused and the least understood of all medical issues. Yet the very vitality and life of our profession, as a profession, depends on the mutual benefit to be derived from its main principles.

This is a great commercial age; an unprecedented era of industrial advancement. Big business has overshadowed the questions of individual morality and responsibility to society to such an extent that we are now undergoing a great social revolution. Every line of human endeavor has been and is under suspicion. A general house-cleaning is under way from the question of the railways giving passes and rebates to the question involving the rights of the members of labor unions to send their own children to another city to create sentiment for their cause. The reform of the methods of legal procedure is a national issue, and the right to recall a judge if his decisions seem unjust is a campaign measure.

While all other lines of business and all other professions have been and are being exposed on account of inherent evils and injustices, it is not strange that the medical profession should be attacked.

To-day the regular profession is harassed as never before by cults and fads. The physician must explain and patiently expound the simplest truths to his patients, over and over, to retain their confidence. A patient gradually dying from the ravages of syphilis may be saved with salvarsan and attribute his recovery to the wonderful efficiency of Christian Science. Another may treat with a specialist for furunculosis, and after he has labored long and faithfully to get her general system improved, she will perform a miraculous cure with Radway's Medicated Plaster recommended by a friend. An ignorant farmer may learn to cure incurable diseases by taking a four weeks' course in magnetic healing. The

cancer doctor may hurry to a fearful end the sufferer from malignant growths. All these things worry us and we may at times ask ourselves: "What is the use of playing fair?"

Yet, through it all, we have retained the confidence of the general public because we are considered fair and honest. Heretofore suspicion occasionally rested on an individual or a small group of men as exploiters of the sick and afflicted, for commercial gain.

Now comes a general attack on the medical profession by some of the best men in the profession itself, accusing us of pure commercialism and the rankest dishonesty. Dr. Charles A. L. Reed, of Cincinnati, an ex-president of the American Medical Association, and one of the most scholarly men in our profession, in an article in *Pearson's Magazine* for April, 1912, entitled, "The Farce of Medical Ethics," shows how widespread is the practice of fee-splitting by which doctors always increase bills and sometimes operate needlessly. He discusses the question at length and the article should be read by every physician.

Dr. John B. Murphy, as President of the American Medical Association, took up the same question at the Los Angeles meeting in June, 1911, and recommended drastic action by the central body. A special committee reported at this year's meeting in Atlantic City.

The question was fought out in Kansas City only a few weeks ago, and the county society passed strong resolutions against fee-splitting.

Why all this discussion? What harm is there in fee-splitting? Why should not a physician from a nearby town bring a patient to our hospital and expect the Maryville surgeon to share the fee with him?

The general practitioner is called to a case, he finds that the patient requires an operation, it takes his time, his knowledge, and all his skill of persuasion to induce his patient to submit to the ordeal. The patient demands that the doctor come to the hospital and thus more of his time is devoted to this case. After the operation and the return of the patient home the family physician gives him the necessary after-attention and must often listen to the recital of the patient's recent experience. If the result is not satisfactory the home physician must endure the punishment after the surgeon loses sight of the case. Why, then, should the surgeon take all the fee?

To every man who respects the ethics of his profession the answer is unmistakable. Chapter II, Article 6, Section 4, of the Principles of Medical Ethics of the American Medical Association is as follows:

"It is derogatory to professional character for physicians to pay or offer to pay commissions to any person whatsoever who may recommend to them patients requiring general or special treatment or surgical operations.

* Read before the Nodaway County Medical Society, May 13, 1912.

"It is equally derogatory to professional character for physicians to solicit or to receive such commissions."

Since cults and fads are abroad, since people are being exploited by unscrupulous frauds, it is more than ever necessary that physicians stand by the high moral law that has come down through the ages. We must clean house for ourselves. We must not do things that will not bear the light of publicity. There should be no arrangement that the patient does not know. The general practitioner should be paid for his services, and where special time and care are required, should get a special fee; but it must be honest money paid for honest service by the patient himself. This can be and is done daily by taking a firm and honest stand, open and above board, for fair compensation. Our county fee bill is a step toward this very end.

In order to bring this subject before the society for discussion and definite action, I introduce the following resolution:

Inasmuch as fee-splitting is practiced, or said to be practiced, by some of the members of the medical profession: and,

Inasmuch as we, the members of the Nodaway County Medical Society, endorse the Principles of Ethics of the American Medical Association, including Article VI, Section 4, which reads: "It is derogatory to professional character for physicians to pay, or offer to pay, commissions to any person whomsoever who may recommend to them patients requiring general or special treatment or surgical operations."

"It is equally derogatory to professional character for physicians to solicit or to receive such commissions," therefore, be it

Resolved: That should the charge of fee-splitting be brought against any member of the Nodaway County Medical Society, such charge shall be investigated by the Board of Censors, and any member found guilty of either offering, giving, soliciting or receiving secret fees, shall be expelled.

On motion, the resolution was unanimously adopted.

HYDROPHOBIA: REPORT OF TWO CASES *

WALTER E. HARRAL, M.D.

ST. LOUIS

Because of the fortunate infrequency of hydrophobia and the necessity of an early diagnosis, if the safety of the attendants is to be provided for, my experience in the following cases may be of service to those who have never come in contact with the disease. In the one case a period of about three months elapsed between the time of the dog bite and the onset of the attack. In the other case the period of incubation extended over more than two years, and so far as I know is the longest on record.

William K., aged 26, American, janitor, married. On the evening of Jan. 24, 1906, the patient came to my office complaining of extreme nervousness, loss of

appetite, a slight sore throat, intense thirst, headache and a great depression of spirits. To use his expression, he said "something bad was in store for him." An examination showed normal pulse, temperature and respiration. Having previously treated him for nervousness, I prescribed a sodium bromid mixture.

On the following morning, January 25, at 8 o'clock, I was called to his home. I found him sitting by the kitchen stove. He complained of being very cold. He had had no sleep during the night. His nervousness, depression of spirits and thirst were manifestly more intense than on the previous evening. The ordinary opening of a door, draught of air and other very usual occurrences would cause him to start and sometimes almost to jump from his chair. I offered him water. If he was able to swallow any it was with the greatest difficulty. His voice was husky. He was breathing thirty times per minute. His temperature was 100, pulse 96, mind perfectly clear.

At noon I found the symptoms of the morning all present, but more pronounced. He was expectorating an excessive amount of saliva. As he expressed it, "spitting a good deal of cotton."

At 2 in the afternoon I called Dr. A. R. Kieffer in consultation. He confirmed the diagnosis I had been afraid to express to any but the patient's brother-in-law.

Spasms began about 6 in the afternoon, each lasting from a minute to a minute and a half, and occurring at intervals of about thirty minutes. The intensity and duration of each spasm increased and they came at shorter intervals throughout the night. During the spasms his jaws worked rapidly, bringing on the condition known as foaming at the mouth. During the spasms he emitted peculiar and unnatural cries. During the intervals between spasms his mind was perfectly clear. He realized that he was suffering from the spasms, although unconscious of his condition or what had happened during the spasm. He feared that he might do injury to someone about him, and at the approach of a spasm would request us to stand back from him. It was apparent to us all that he knew the nature of his trouble.

At about midnight we removed him to the O'Fallon Dispensary. The intensity of the spasms increased until about 3 o'clock of the morning of January 26. From that time they gradually decreased in intensity, but continued to increase in frequency until at about 6 o'clock in the morning there were few, if any, intervals between them.

At about 6 o'clock he passed into the third stage, or the stage of complete paralysis, and from that time until his death, at about 7 o'clock of the morning of the 26th, he lay almost perfectly still. Now and then he showed a slight jerking of the muscles.

The flow of saliva from his mouth from midnight until his death, even through the paralytic stage, was continuous and profuse. After about 3 o'clock of the morning of the 26th he was unconscious. He died within thirty-six hours after he had first thought it necessary to consult a doctor.

It was not until after his death that I learned of any dog bite. Then I learned that in October, 1905, a small dog with which he was playing had bitten him through the thumb. He had thought nothing of it at the time. He did not even consider it of enough consequence to tell his family. I learned of it from one of his fellow-laborers who was present when he was bitten. It had left no scar.

Chas. S., aged 36, German, baker. On May 20, 1909, I was called to the patient's home at about 11 o'clock at night. I found that he had been very restless during the day, had been unable to work; was much depressed; had not been able to sleep after retiring that evening. His pulse, temperature and respiration were normal. During the day he had called at a physician's office to be treated for sore throat. I found no abnormal condition of his throat and I have since learned that the

* Read in the General Session of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

physician he consulted found none. His voice was husky. He could not swallow. I offered him a drink and he made a faithful effort to swallow, but could not. He trembled so that he could hardly hold the glass. I opened a faucet in the room and noticed that the running water excited him greatly. He seemed to know what was going on about him, but his mind was manifestly affected.

I suspected hydrophobia and inquired of his sister for a history that would give me some confirmation. She told me that early in May, 1907, more than two years previous, a stray dog had run into their bakery and had bitten them both. She had had her wound cauterized immediately, but he had refused to take similar treatment, laughing at the idea of hydrophobia.

I gave him a half grain of morphin, hypodermically. I called on him again at 6 o'clock in the morning. At that time I found the same symptoms in about the same degree of intensity. As they had not abated I removed him to Centenary Hospital. I requested physicians calling at the hospital to call in and see him. Eight out of the twelve who accepted the invitation were amused at my diagnosis of hydrophobia.

His symptoms remained about stationary until late in the afternoon when they became characteristic of the second stage—that of excitement. The most usual noises would greatly irritate him. It was painful to watch his attempts to swallow.

Spasms began in the early evening, and occurred at intervals of about one hour. They rapidly increased in frequency and severity. At about 11 o'clock at night (twenty-four hours after I had first seen him) he became unmanageable and positively dangerous. A one-fifth grain of apomorphin relaxed him sufficiently to permit him being put into a straight jacket. The spasms continued, reaching possibly as many as one hundred spasms during the night. They were attended with constant chewing. Salivation was most excessive. Dyspnea was pronounced throughout the night.

His mind progressed from being cloudy at my first visit to constant and wild delirium. He manifested no interest in the welfare of others at any time, and the personal danger entailed made his case a very difficult one to handle. He would spit at those near him with great force and accuracy and apparently with the most malicious intent. He covered the ceiling and walls with saliva. He spit at attendants and others opening the door to enter his room. Opiates and chloral in heroic doses modified his condition but little.

He passed into the paralytic stage about 5 o'clock in the morning and died at 6 o'clock in a state of complete relaxation.

6201 Etzel Avenue.

THE HISTORY OF MEDICINE; SOME OF ITS ACCOMPLISHMENTS *

HARRY B. NORTON, M.D.

CENTER, MO.

Like all other departments of philosophy, medicine began with an age of wonder. The accidents of disease and the features of death aroused surprise and stimulated interest, and a beginning was made when man first asked in astonishment, "Why should these things be?" Surrounded everywhere by mysteries, he projected his own personality into the world about him and peopled heaven and earth with powers, responsible alike for the good and the evil, who were to be propitiated by sacrifices or placated by prayers.

Satisfying the inborn longing of the human mind for an explanation, these celestial creatures of his handiwork presided over every action of his life.

Crude and odd among primitive nations, these ideas of disease received among the Greeks and Romans a practical development worthy of these great peoples.

There had been systems of so-called divine healing—but for beauty of conception and for grandeur of detail and execution, all are as nothing in comparison with the cult of the Son of Apollo, Æsculapius, the god of healing. To him was raised superb structures which were filled with the most sublime products of Greek art, and which were at once temple and sanatoria.

Real cures were often effected and the inscriptions tell of the touching and simple faith which then, as now, forms so important a factor in the healing of many diseases. In other cases change of air and scene, the baths, and massage effected cures. In dreams which came in the "Temple Sleep" the god indicated the special treatment to be carried out.

Scientific medicine had its origin among the Greeks in the fifth and sixth centuries B. C. It was about this time that Hippocrates introduced the art of observation. He was the first to recognize that a number of patients sometimes displayed the same group of symptoms; thus the naming of disease.

After the death of Hippocrates, Greek medicine continued to flourish and at Alexandria reached a very high plane. Anatomy and physiology were studied with the greatest care and many important discoveries were made; for example, ascites was described with great care, and they knew of its association with hardening of the liver and diseases of the spleen.

The centuries immediately preceding and following the birth of Christ saw medicine flourish remarkably throughout the Roman world. The great Greek practitioner of this period and one of the greatest figures in the history of medicine, is Galen, who was born A. D. 130. In every department of medicine this man was a reformer: he placed the whole foundation of the art in anatomy and physiology. Galen's researches in anatomy were of a most extensive character, and in this subject, as well as on the nature and treatment of disease, his views were accepted as gospel until the sixteenth century.

The special interest to us here is that to him may be traced the second great instrument which has influenced the advance of clinical medicine, namely, experiment. We owe to him elaborate studies on the action of the heart—and he narrowly missed discovering the general circulation of the blood. He demonstrated the motor and sensory nerves and distinguished them, leaving the spinal cord. As an experimenter he had no successor of the same caliber until Harvey.

* Read at a public meeting of the Ralls County Medical Society, Spalding, July 18, 1912.

Greek medicine had now reached its climax, and with Galen the first great chapter in the history of scientific medicine closes.

It is one of the most remarkable and inexplicable features in history that having made a beginning of such brilliancy, the scientific study of disease made little or no progress for the next ten or twelve centuries.

It is a singular fact that during these ten or twelve centuries none of the sciences made any material progress—men were content to accept the geographic system of Ptolemy, the philosophy of Aristotle, and the infallibility of Galen ruled the minds of all practitioners of medicine.

Practically throughout the middle ages there was no such thing as an accurate study of clinical medicine. During this period, from the sixth to the fourteenth century, Greek medicine became tintured with Arabian medicine. From the Arabians came many new drugs and chemical processes: crude indeed they would seem now, but in them is found the germ of modern chemistry.

The old universities, particularly the school of Salerno, in southern Italy, maintained the Greek traditions and was recognized as the leading school of medicine in Europe. Through it the writings of Galen and Hippocrates filtered into modern Europe.

During the fifteenth and sixteenth centuries Vesalius and his successors revived the study of descriptive anatomy and restored once and for all times the methods of Hippocrates and Galen.

About this time Harvey, by a series of experiments, demonstrated the general circulation of the blood: thus experimental medicine once more took its place in the advancement of scientific medicine.

The next great contributor to medicine was Sydenham, who, about the middle of the seventeenth century published his observations on fevers. No one before him so clearly recognized that the manifestations of fever represented the efforts of Nature to get rid of the injurious agents causing the disease, and he was the first to insist on the importance of a knowledge of the natural history as a basis of rational treatment. Many of his descriptions of chronic disease have never been surpassed, and his account of chorea, hysteria and of gout have become classics in the literature.

As with nearly everything of value in the practical aspects of modern life, agriculture, horticulture, banking, colonization etc., so in clinical medicine, the Dutch were our masters—they were the first to organize regular clinical instruction as part of the university teaching.

About 1714, the University of Leyden, under the leadership of Boerhaave, became the Mecca for medical instruction: students flocked to it from all parts of Europe. In 1726 the medical department of the University of Edinburgh was

organized by John Rutherford and others, who were students of Boerhaave and soon outstripped all of its compeers. To Edinburgh all of the abler young men went from the English colonies for their medical education. Baird, Morgan, Shippen, Rush and others, and from the efforts of these learned gentlemen we owe, to-day, the development of our profession in America.

Philadelphia was the center of medical interest, and in 1762 William Shippen, after a study of five years abroad, returned to his native land and with John Morgan organized the medical department of the College of Philadelphia.

A few years previous the Philadelphia Hospital was organized by Thomas Bond and Benjamin Franklin, realizing the importance of clinical instruction in medical teaching the following year the hospital became an integral part of the medical school. Thus our first medical school was soundly conceived as a part of an institution of learning and connected with a large public hospital.

Before the close of the century three more medical schools were founded similar in style; one in New York City, the Medical Department of Kings College, the Medical Department of Howard College, and Dartmouth College. The sound start of these early schools was not long maintained. Their scholarly ideals were soon compromised, then forgotten. True enough, seats of learning continued to create medical departments, but with the foundation early in the nineteenth century of a proprietary school at Baltimore a harmful precedent was established. Before that a college of medicine had been a branch growing out of the living university trunk.

Since that day medical colleges have multiplied without restraint. Between 1810 and 1840, twenty-six new medical schools sprang up; from 1840 to 1876, forty-seven more. First and last the United States and Canada have in a little less than a century produced 457 medical schools. Wherever and whenever the number of practitioners grew to half a dozen a medical school was likely to be precipitated—nothing was really essential but professors. The length of the school session was optional with the faculty—ranging from one to two terms of six months each. From time to time the voice of protest was heard, but for years it was a voice crying in the wilderness. In 1846, through the untiring efforts of Nathan Smith Davis, the American Medical Association was formed—for the sole purpose of bettering the methods of medical education in the United States.

They recommended that young men receive as students of medicine should have acquired a suitable preliminary education, and that a uniform elevated standard of requirements for the degree of M.D. should be adopted by all medical schools. And there is no denying that within the last fifteen years substantial progress has been made,

The sixth report of the Carnegie Foundation for the Advancement of Teaching calls attention to some interesting facts regarding medical education. While in 1905, there were 160 medical colleges, with 26,000 students, the number had fallen in 1911, to 120 schools, with 19,000 students. A tendency towards unity of the medical profession is shown by the fact that there remains only twelve homeopathic and six eclectic schools, which is very desirable—after all, the practice of medicine should know no limitation of school, but the whole breadth of medical knowledge should be used in the common interest of suffering humanity.

At present there are thirty medical schools which require as a preliminary training, in addition to a four-year high school course, two years work in some recognized literary school: sixteen require, in addition to the high school work, one year of collegiate work. The others will either fall in line or become extinct. The ideal medical school is one that is an integral part of a university sufficiently endowed to maintain all its departments without depending on the fees obtained from its students.

Another step in the right direction is the awakening of the individual states—already nine states have adopted preliminary requirements in advance of four-year high school course—and other states are contemplating advancement in the near future; these advancements are necessarily slow; as it always means an up-hill fight against those forces that are opposed to a reasonable standard of education—namely, the pseudo-medical cults.

Probably the greatest problem in this country and which has no parallel in any civilized nation is that due to the existence and recognition of medical sects. In the United States to-day it is as easy to introduce a new method of healing as it is a new religion. All one has to do is to have a dream some night that the seat of all disease is some particular part of the human anatomy, then think up some meaningless name to call it—organize a college, make himself the faculty—then you have it. Why not? There are no state laws prohibiting such a movement, no educational restrictions regarding this particular method of healing, and as a rule it never takes over six weeks or a year to finish a course of this kind, and you have no state board to pass after finishing. Of these cults I might mention a few—the osteopaths, who are not entirely devoid of good: true, they have lengthened their course from two to three years, but still their teaching facilities are entirely inadequate, require practically no preliminary preparation and teach all diseases are due to mal-adjustment of the bones. Christian Scientists, who insist that all disease is an error of the mind. Chiropractics, who manipulate through the back-bone—and last, but not least, a brand new system has been born—Napa-

pathy—who maintain that all disease resides in the ligaments.

Yet in spite of all these drawbacks scientific medicine has been a wonderful benefactor to mankind. Through the introduction of vaccination by Jenner, during the close of the eighteenth century, small-pox, one time most dreaded disease known to mankind, has practically been eliminated.

With the beginning of the antiseptic era by Lord Lister and others, and the discovery of ether and chloroform by Morton and Simpson, surgery has developed to nothing short of a miracle. To catalog the achievements of surgery for the past twenty years would take more space than this article could claim. There is, in fact, scarcely a class of ailments in which surgery has not taken a hand. The wonderful story of surgery properly written would read like a romance. What Arabian Nights genie can compare with the man in the white gown?

Visit a modern clinic to-day and watch the man in white in action: first comes a patient afflicted with gall-stones who has suffered many things of many physicians: medicine has failed to give relief: the patient is rendered insensible to pain—thanks to the discovery of ether and chloroform—thirty minutes with the knife and the gall-stones are seen in the museum jar, and in a few weeks the patient is again enjoying the best of health. Next comes a child with club feet—again a little ether, a few twists with the resection of a tendon or two—a little plaster of Paris and the child's feet are straightened, who fifty years ago would have been doomed a cripple for life.

So they come and our modern magnus tackles them all. The end is not yet. Last fall in Philadelphia, there was held a Congress of Surgery, at which were reported some of the achievements which had been brought forth during the past year—one surgical wizard, Alex Carrel, exhibited a dog, two years after both kidneys were removed and replaced by others taken from other dogs, alive and active as anybody's dog. The possibilities opened by such a procedure are incredible, a man's kidneys are hopelessly diseased, a healthy human kidney is secured from a man just killed, or dead from something not injurious to the kidney and transplanted, and lo! the sick man is promptly cured.

Another disease that has been robbed of its terrors is diphtheria: since the introduction of antitoxin the death-rate has fallen from 30 to 50 per cent. to 3 to 10 per cent.

During the last few years very extensive work has been done along the line of serum and vaccine therapy, and from the good results so far it would seem that we are on the threshold of the greatest era in medical history, namely, when every disease will be successfully treated by a specific serum or vaccine.

History will show that every war waged in this or the Eastern Continent, that more soldiers have died of preventable diseases than were killed, typhoid fever heading the list. To-day, by a simple method of vaccination typhoid has been routed from the army. The recent mobilization of troops in Texas was a beautiful example of this. Out of a force of 20,000 only two cases of typhoid fever developed; one in a teamster, who refused to be vaccinated; the other a soldier, who developed the disease before the vaccination was completed.

It is interesting to note the rôle that medicine has played in the development of new countries. If Laveran and his followers had not shown that malaria and yellow fevers were caused by a protozoa transmitted by the bite of a certain species of the mosquito, millions of acres of our Southlands would still be useless swamps, and the Panama Canal still the fancy of the civil engineer's mind instead of an actual reality.

The official pilot chart of 1903 says: "The Panama Canal district is one of the hottest, wettest and most feverish regions in existence." From 1850 to 1855 the present railroad across the Isthmus was under construction—during that time work was stopped several times because the working force had all died or were sick. At one time the construction company imported 1,000 negroes from Africa; within six months all these had died; again they brought over 1,000 Chinese, and these all died within six months.

In 1881, the French government undertook to build the Panama Canal, and in 1889 the work was abandoned on account of the high mortality. During that period of eight years the French lost 22,189 laborers by death. At that time we could not have done one bit better than did the French. The great discoveries in tropical medicine made during the coming of the French and the coming of ourselves have made it possible for us to successfully combat the diseases peculiar to that country. To date there has not been a case of yellow fever in the Panama district since May, 1906. To-day the Panama district is a healthier place to live in than any of our modern cities.

While the accomplishments of medicine have been many, especially along the line of sanitation, it is only a beginning of what could be done if it only had the support of the government. Outside of the Army and Navy and all government works, there is no provision made for the preservation or improvement of public health.

During the administration of Mr. Roosevelt, the National Health Commission of one hundred was selected for the purpose of investigating health conditions throughout the United States. There was never assembled a more distinguished body of scientists. It was demonstrated beyond

reasonable doubt by the report of this Committee that the United States suffers a preventable loss of over 600,000 lives per annum, a daily sacrifice of 1,700 human beings, over one a minute from one year end to another. This terrible loss could be prevented by reasonable safeguards under the cooperation of the federal and state authorities, and with an expenditure that is utterly trivial in comparison with its benefits. There are three millions of people seriously sick all the time in the United States from preventable causes. Measured in money this means a preventable loss to the people of the United States of two thousand millions yearly. It was also clearly demonstrated by this committee that the average span of human life could be lengthened fourteen years within one generation.

We have an agricultural department, and we are spending fifteen millions a year to tell the farmer how to raise big crops, fine cattle and hogs, or, as Will Herford, in the current issue of *Life*, puts it:

The U. S. Agriculture Sec.

Is always on the works,

Conditions right for sheep and dogs.

Pure food for horses, cows and hogs.

He'll have or break his neck.

He says that it has been decreed,

And wants it understood,

That wholesome food and healthful play,

Cheerful surroundings every way,

Are things that young pigs need.

And piggy loves this world so fair;

(We like him for his taste)

He's granted every wish and whim.

His house and food are furnished him,

For clothes he does not care.

What of the mine and factory brat—

The little human kid?

We legislate for pork and ham:

For childhood we don't care a ——

Laws are not for that.

There is before the Senate to-day a bill providing for a national department of health—another cabinet member, whose business it will be to look after the health of our nation. With fifteen millions of dollars at the disposal of the medical profession for the betterment of the public health it would be hard to estimate the good that would be accomplished. I think that one would be safe in saying that within twenty years all the acute contagious diseases would be an uncommon instead of a common occurrence. Typhoid fever would be stamped out entirely and tuberculosis well under control, and flies, fleas, rats and other disease-carrying pests would be found only in museums as preserved specimens and regarded as curiosities.

THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

NOVEMBER, 1912

EDITORIALS

THE STATE'S OBLIGATION TO CRIP- PLED CHILDREN AND A COMMENT ON THE THEORY OF PRE-NATAL INFLUENCE

By his action in barring an 8-year-old paralytic boy from attendance at school, Professor C. G. McMillan, Principal of the Kinloch School in St. Louis County, recently subjected himself to some pretty acrid criticism by the press and certain individuals.

The reason advanced by the professor for refusing to allow the crippled child, who is paralyzed from the waist down, to attend the school was that the morbid effect on the minds of the other children would be a detriment to them; and especially—and here was the principal cause for debarment—that the “pre-natal influence” on the girls would cause these prospective mothers later in life to bear children similarly deformed.

The professor claims to have some acquaintance with the law, but if his familiarity with legal lore is to be estimated by this demonstration of what he knows about the physiological processes of the reproduction of the human species he could not qualify to practice in any court that we ever heard of.

Scientific findings have long ago exploded the theory of pre-natal influence and unprejudiced minds have discarded the belief. Professor McMillan's exaggerated conception of this old wives' tale might, therefore, be dismissed with a comment or ignored entirely, were it not for the fact that one who enjoys the prestige of being a public instructor might, by his lack of knowledge or distortion of theories, promulgate erroneous impressions to the detriment and injury of those who place credence in the accuracy of his statements when such misleading statements are allowed to go unchallenged.

The pre-natal influence theory is a superstition pure and simple, and ought to be condemned in the most emphatic terms. For this reason the St. Louis Medical Society immediately took action and published the following resolution, to counteract as far as possible, the false and misleading impression that Professor McMillan's declaration might create. The resolution, introduced by Dr. Norvelle W. Sharpe, reads:

WHEREAS, In the columns of *The St. Louis Republic* of Oct. 12, 1912, there appeared an account of the dismissal from the Kinloch school of St. Louis County of a lad of eight years, said dismissal based upon the fact that the child is partly paralyzed, and is, therefore, said to be a distressing object to his fellow-students and a source of danger to the girls, and,

WHEREAS, In the language of said article, “the chief reason, however, that he should not be allowed to mix with other children who are at an impressionable age is that he will have a bad influence on their minds”: furthermore, the article quotes the school principal as stating, “the little girls especially are apt to produce similar deformities in their offspring in later life,” be it

Resolved, That the St. Louis Medical Society declares such a charge to be false and misleading and positively affirms that the theory of “pre-natal influence” is absolutely devoid of rational foundation.

During the period which embraced the earthly career of Dr. Oliver Wendell Holmes, some credence was placed in the theory of pre-natal influence, but the wisdom of wiser years has proved the notion false. Elsie Venner is a tolerably ancient dame now, and she is nearly as far behind the times as she is old.

Doubtless the principal of Kinloch school was sincere in his belief that the boy was a menace to other children, but the kind of sincerity that is based on inexcusable ignorance or dogmatic disbelief does not fascinate us. Such sincerity is a criticism not a commendation.

The obverse of the picture presents a timely topic for discussion by educators, sociologists, philanthropists and statesmen, in the query, Who shall educate this child? To our mind there is but one answer, namely, the state. As to what method shall be pursued in the fulfilment of this duty we are not so positive. Clearly, the child is entitled to an education—in fact, the state commands that he shall attend school—and it is just as certain that the state is under obligation to him and to his parents to provide the method of acquiring this education when the common source, the public school, is closed to him. If the school authorities cannot be induced (or reduced) to reentering him, the state should provide an individual instructor for him; this seems to be the only course open. There are no special institutions in Missouri for the accommodation of such as he; it would hardly do to put him in an insane asylum, for he is mentally capable, nor would it be any more appropriate to place him in a reform school or the deaf and dumb school. The question rests between the Kinloch school authorities on the one hand, and the state on the other hand, as to which shall educate this child. The state law commanding him to attend school and the school officials refusing to receive him.

If the question of admitting paralyzed or otherwise crippled children to the public schools is to be brought up periodically, the state should bestir itself to meet the proposition. But it seems to us that since the city of St. Louis successfully takes unfortunates of this kind into its public schools the town of Kinloch can be equally kind to its afflicted.

THE SPIRIT OF SOCIETY WORK

The spirit that animates the working members of a county society readily transfuses itself throughout the entire membership. If the officers and committeemen are possessed with a desire to see their society actively engaged in the spread of medical knowledge, which is the chief object of county society organization, there will naturally follow studies of questions touching other phases of our professional life and the discussion of conditions which affect the public health. With the increased activity of the society opportunities will rapidly arise for extending the society's influence toward improving the health conditions of the community.

We believe the members throughout the state will learn with considerable gratification that the organization is growing in strength and influence, and that a large majority of the county societies are doing good work, not only in the reading and discussion of papers on purely technical subjects, but also in the direction of promoting improvements in the hygienic and sanitary conditions of private and public life. We desire, therefore, to urge all county societies to foster a spirit of enthusiasm and solicitude for the life and activity of the society. For this purpose we cannot do better than quote the words of an editorial in the *Bulletin* of the Jackson County Medical Society for September 28. Although addressed to the members of that society, the remarks possess the same meaning for all county societies. If the spirit which prompted the writing of this message could pervade all members it would have a most beneficial influence in many directions. The article reads:

The Jackson County Medical Society has entered upon a new era. Our recently acquired and established Society rooms; our great opportunity in the accessibility and use of the Kansas City Medical Library, made possible by Dr. Hertzler's generous disposition of his 15,000 volumes, manuscripts and journals with our own small, but growing library and current literature; our modern lantern and projectoscope; the sentiment demonstrated and the unanimous action taken during the past year upon vital questions of ethics such as the commercializing of medical practice advertising, etc.; the improvement in preparation and character of papers presented and our increased attendance, all point to a new life and greater promise for our local medical organization. But to sit satisfied on this will mean retrogression.

Many matters of great importance to our growth and real advancement have been suggested during the present administration, and committees have spent hours in their consideration. As yet upon these no positive action has been taken. Some of these matters have to do with society administration, some with our relation to the profession in their personal or institutional relations, and others with our public and civic obligations. It behooves our officers and committees to consider at once their official duties to initiate indicated measures and put through the already suggested and much needed amendments to our Constitution and By-Laws. Let us get right down to work, and give our present, faithful and earnest president our every support.

ON THE PAYMENT OF ANNUAL DUES

The fiscal year of the state association ends December 31. On that date all privileges and benefits of membership expire and dues for the ensuing year are payable on the first of January, 1913.

For purposes of expediency and the correct handling of the accounts it is desired that county secretaries collect the assessments early in December, or at the last meeting in November, and forward the lists and checks as soon as possible thereafter to the state secretary. Certificates of membership for 1913 will then be issued and the rush and labor of issuing a large number immediately after the first of January will be largely obviated.

Annual statements and lists of members for which county societies will be assessed will be forwarded by the state secretary during November.

TRAU, SCHAU, WEM (LOOK WHOM YOU TRUST)—CONTINUED

Some time ago (*THE JOURNAL*, June, 1912, p. 485) we suggested that physicians should become acquainted with the character of drug manufacturers. Attention was called at the same time to a firm doing business in this state. Believing that our readers should be familiar with the medicines manufactured by Missouri firms, the following is reproduced from the *Oil, Paint and Drug Reporter* (September, 1912, p. 38):

"Notice of Judgment No. 1560, against the Allan-Pfeiffer Chemical Company, of St. Louis, Mo., for alleged shipment on May 3, 1910, from Missouri to Illinois of a consignment of Allan's compound extract of damiana with saw-palmetto, bearing on the label '27 1/2% Alcohol. Recommended for Lost Manhood, Hysteria. . . . Allan-Pfeiffer Chemical Co., St. Louis, Missouri.' Analysis of a sample of the product by the Bureau of Chemistry of the department showed the following results: Resin, glycerin, extractive material from damiana, saw-palmetto and probably sumbul; the balance of the product being water and a small quantity of volatile oil. Misbranding of the product was alleged in the information for the reason that the label upon the product bore statements, designs and devices regarding said product and the ingredients and substances contained therein which were false and misleading because they created the impression and belief that the product consisted essentially of extract of damiana with saw-palmetto, whereas it consisted of numerous other ingredients and substances which rendered it deceptive and misleading to label and brand it as extract of damiana with saw-palmetto, and to create and convey the impression and belief to the advantage and benefit of the manufacturer that extract of damiana with saw-palmetto was present in considerable and beneficial quantities, whereas it was not so present. On March 18, 1912, the defendant company

entered a plea of guilty and the court imposed a fine of \$10 and costs."

Of course a fine of \$10 and costs will not embarrass the Allan-Pfeiffer Chemical Company, and they will continue business at the old stand. If this misbranding had been of a remedy for lost "hoghood" or lost "studhood" and sold to farmers as a restorative of virility of boars and studs we can readily imagine a fine amounting to ten or twenty times this insignificant sum, for deceiving the farmer. But the human animal is supposed to know how to protect himself against deceptions of this character, and perhaps \$10 just about "sizes up" the damage done the inhabitants of a community who swallow the "dope"—literary and liquid—distributed by such manufacturers.

The lesson for the physician in this case is one that has been repeatedly emphasized in these columns, in *The Journal of the American Medical Association*, and in other ways, namely, that the statements of the average drug manufacturer are to be viewed with doubt until their accuracy has been verified. The circumstance also serves to emphasize the importance of the Council on Pharmacy and Chemistry to the practicing physician. The sooner our members learn to depend on the information emanating from the Council the better it will be for them and for their patients, not to mention the public generally.

In this connection we want to emphasize the importance of the advertisements in your JOURNAL. You may depend on them. You ought to patronize them. Nothing of a medical character is advertised unless it has been approved by the Council, and is, therefore, reliable and truthful and marketed in harmony with the ideals of the organization. Those manufacturers who thus meet the conditions we ourselves have established should be the first ones to receive the patronage of our members. Advertisements of non-medical articles are also scrutinized carefully before acceptance and their reliability determined before being admitted. The advertising department of the JOURNAL is informative and supportive and should receive the attention of the members. Scrutinize, criticize and patronize this branch of your organization work.

PHYSICIANS AND DRUG ADDICTION

An interesting article by Charles B. Towns, entitled "The Drug Taker and the Physician," appears in the October issue of the *Century Magazine*, in which it is declared that the number of physicians addicted to the use of drugs is less than 5 per cent., instead of 15 per cent., as has been generally asserted. Considering the familiarity that every physician must have with drugs, and the temptation to their use to which the physician is exposed because of his irregular hours and the nervous tension he often suffers in the performance of his duty, this speaks volumes for the integrity of the profession.

Mr. Towns also calls attention to the fact that there are no state or city hospitals devoted exclusively to sufferers from the drug habit, although drug addiction, he shows, has become one of the problems of our problem-permeated modern social life. The drug habitue is less responsible and less able to take care of himself than the alcoholic; he is, furthermore, a greater menace to society, for there are no lengths to which the drug fiend will not go to secure his panacea. Despite this fact, the average drug taker is abandoned to the none too-tender mercies of the police and the workhouse when he has reached that stage in disease which renders him wholly irresponsible and inefficient.

The article notes also with regret, that neglect is the only attention given the pathology of drug addiction by the great majority of the medical colleges. The physician is the person who should deal with the drug slave; is, indeed, his only salvation; yet the average doctor knows little or nothing about this phase of human affliction.

The situation, as outlined by the writer, is startling and deserves the recognition and the remedial efforts of the profession, both in private practice and in assembled convention.

THE WORLD CONGRESS ON HYGIENE

The International Hygiene Congress, which met in Washington during the last week in September was the occasion of some startling statements concerning certain conditions which exist: conditions that promise to assume proportions threatening to our modern social structure, a shame and a disgrace to civilized communities, unless corrected.

The annual financial loss from children who die of tuberculosis reaches \$75,000,000; the number of these deaths is 50,000. The average age at which these children die is 7½ years. Practically all these deaths are preventable and would be averted by proper care of the children at the right age.

Another report has it that of the 55,000,000 infants born each year, 15,000,000 die before they reach the age of 1 year from causes attributable to neglect of some preventable kind, and the neglect is not altogether that practiced after birth.

Practically every case of congenital blindness is due to pre-natal indiscretion, and is caused by venereal disease.

If people would only take to heart the facts contained in these dry-as-dust statistics, much of the suffering and crime which goes on daily would be avoided.

The physical and mental inefficiency of people is responsible for much of the poverty which chains the world; the desperate crime-compelling kind of poverty which is the chancre of every community on the face of the globe; and by far the majority of these mental and physical defec-

tives are the result of a disregard for hygiene and sanitation which is nothing short of criminal.

The International Hygiene Congress met for the first time in 1852 to consider the problem of the great cholera epidemic which was then ravaging Europe; to-day every civilized country in the world is represented in its sessions.

Many of the great advances which have been made in general sanitation resulting in the control of the old scourges like cholera and scarlet fever, have come as an aftermath of these international congresses.

SUPPRESSING THE FORTUNE TELLER

A bill which has as its object the suppression of fortune tellers, clairvoyants and mind readers, is now pending before the St. Louis Municipal Assembly. The need for such a bill is obvious and its framer is to be commended, but there is a class of frauds which constitute a far greater menace to the well-being of the people. The pseudo-physicians who practice their unholy calling for the purpose of enriching themselves, exaggerating the maladies of their victims and extolling the therapeutic efficacy of untried and even worthless agents that they may thereby gain a few extra dollars—that class is a greater sore on the social body than the psychic fakers, bad as are these latter. Both should go by all means, but it would be more consistent to attack the greater evil first.

It is very probable that the anti-fortune teller bill is the direct result of a recent swindle maneuvered by a St. Louis psychic who departed with his client's money, obtained, of course, under false pretenses. The framer of that bill being a physician, knows something of the extortion practiced by many of the pseudo-doctors, and has some appreciation of the mental anguish resulting from failure of high hopes raised purposely by these frauds for the sake of the profits; he has doubtless seen some of the fearful results of the malicious and mal-medicinal performances of these fakers. It is to be hoped he may yet include this latter class in his prohibitory and commendable legislation.

NEWS NOTES

THE Southwest Missouri Medical Association will hold its next meeting in Springfield, November 7-8.

DR. EDWARD H. SKINNER, of Kansas City, was married to Miss Florence I. Stowell, in Kansas City, on October 15.

DR. CARL H. VON NOORDEN, of Vienna, delivered an address before the St. Louis Medical Society on September 30, when he visited that city. The subject of the address was "The Treatment of Acetonuria."

MISS HELEN GOULD has donated \$10,000 to the Day and Night Camp for tuberculous persons at St. Louis. This gift assures the success of the undertaking which has for its object the care and treatment of poor persons unable to obtain attention at other places.

DR. C. C. CONOVER, of Kansas City, conducted a most interesting heart clinic at the meeting of the Randolph County Medical Society, Huntsville, on September 12. Ten patients were examined by Dr. Conover, the condition diagnosed and the cases discussed.

DR. F. J. LUTZ, of St. Louis, delivered an address on "The Relationship of the Doctor to the State," at an open meeting of the Audrain County Medical Society, in Mexico, October 11. The meeting was well attended by an intelligent and interested audience including the superintendent and teachers of the public schools.

THE ceremonies attending the laying of the corner-stone of the Barnes Hospital at St. Louis on October 11, were very impressive. This institution will be finished in about a year and will, when completed, give St. Louis one of the largest and best appointed hospitals in the country. The building will cost \$1,000,000 and an endowment fund of \$1,000,000 has been provided for its maintenance. The medical department of Washington University will have charge of the institution.

THE following articles have been accepted for inclusion with New and Nonofficial Remedies:

Neosalvarsan (Victor Koechl & Co.).

Bismuth Betanaphtholate (Merck & Co.).

Staphylo-Strepto-Bacterin Mixed (H. K. Mulford Co.).

Anti-Plague Bacterin (H. K. Mulford Co.).

Slee's Glycerinated Vaccine Virus (Abbott Alkaloidal Co.).

Detre Differential Diagnostic Test (Cutter Laboratory).

Tuberculin, O. T. (Dilution) Von Pirquet's Reaction (Cutter Laboratory).

Diphtheria Antitoxin (Cutter Laboratory).

Saloquinine (Merek & Co.).

Menthol-Iodol (Kalle & Co.).

CORRESPONDENCE

SUGGESTS INCREASE OF DUES

To the Editor:—I have just been reading and perusing the September issue of the JOURNAL, and feel impelled to make a few complimentary remarks. The advertising pages are clean and seem to be in perfect harmony with the propaganda of reform, along the lines of ethical advertising, as promulgated by the A. M. A.

The special department of "News Notes"—consisting of short editorial squibs and bits of recent information—is doubtless appreciated by all. The main editorial department is in keeping with the special and general features of the publication, showing that the editor is not sleeping on his oars, but is leading the procession.

In this connection I think it pertinent to suggest that it may be dawning on the membership that we are certainly getting our money's worth. The defense feature alone would be ample compensation for the amount (\$2) invested, not to mention the many other advantages of membership, including subscription to one of the best monthly journals in publication.

It should be a simple matter to so augment the Defense Fund (by increasing annual dues if necessary) as to broaden the scope and power of the Association, to the advantage and justice of the members of the regular profession.

Sincerely,

A SUBSCRIBER.

THE STATE SANATORIUM FOR INCIPIENT TUBERCULOSIS

ST. LOUIS, Oct. 22, 1912.

To the Editor:—Whatever may be the outcome of the coming election, there will doubtless be many changes in the different boards to which our profession is related. While the personnel of the board of health and the other boards of the different institutions is important, it is equally important that good men should be urged for selection as members of the Board of Managers of our State Sanatorium.

The state has been very generous in its appropriations for the support of this work and the results have more than equaled the expectations, not only in the return of the wage worker to his place, but in its educational influence all over the state. This is largely due to the efficiency of the local staff and their application of the most scientific and painstaking methods.

At present there are 141 patients doing well, and there has not been a death for two years. Of course, only the incipient cases are taken, yet no one is admitted who does not respond to the laboratory test.

With this splendid record, second to none in any state, with a splendid plant, every bill within the law, paid to date and the closing year finding it not only free from debt, but with a balance unexpended, Mount Vernon Sanatorium should be supported by the best men in the profession. It was the St. Louis Medical Society and the Clinical Society that worked patiently at the beginning, while the State Society has ever shown its great interest in the work.

I can speak freely, for under no circumstances am I a candidate for reappointment, but having enjoyed the confidence of the last two administrations, I can say that there is not nor has there

been any political intrigue in our great institution, and our profession should see to it that only good men are endorsed for appointment to its management. One or two undesirable men could easily wreck this work.

We have confidence, however, that the new Governor will thoroughly investigate all candidates and will not oppose the great body of earnest reputable physicians in making his selections.

Very truly,

WM. PORTER, M.D.

SOCIETY PROCEEDINGS

SOUTHWEST MISSOURI MEDICAL ASSOCIATION

The thirty-sixth semi-annual meeting of the Southeast Missouri Medical Association was held at Cape Girardeau October 15-17. The program consisted of the following papers:

- About Neurasthenia and Hysteria, T. C. Allen.
- Some Ancient Topics, G. W. Vinyard.
- Report of a Case of Surgery, F. R. Atkins.
- Trachoma, J. W. Mott
- Report of Case of Ununited Fracture of Femur, Presentation of Patient, H. L. Reid.
- Prognosis of Heart Disease, H. L. Cunningham.
- Administration of Quinine in Malaria by Inunction, J. C. Boone.
- Report of Cases, A. A. Bondurant.
- Malarial Hemoglobinuria, T. R. Frazer.
- Endarteritis and Arteriosclerosis, A. H. Hamel.
- Paper by J. M. Finney.
- Demonstration on Blood-Changes in Various Infections with Stereopticon Views, C. H. Neilson.

ST. LOUIS MEDICAL SOCIETY

The meetings of the Society for October were well attended and the interest in the work is well sustained. The special meeting of September 30, when Dr. Carl von Noorden, of Vienna, delivered an address on "The Treatment of Acetonuria" filled the hall to its capacity, there being over 300 present. The programs for the meetings of November and December follow:

Saturday, Nov. 2, 1912

German Surgical Clinics of To-day, Dr. Willard Bartlett.

German Gynecological Clinics of To-Day, Dr. George Gellhorn.

Saturday, Nov. 9, 1912

Fibroid and Pregnancy, with Demonstration of Specimen, Dr. N. M. Freund.

Obstructive Calcareous Papillitis—Retention Cyst of the Kidney, with Demonstration of Specimen, Dr. J. R. Caulk.

The Effect of Certain Drugs Upon the Tissues of the Lungs, with lantern slides (by invitation), Prof. D. E. Jackson, Washington University.

Saturday, Nov. 16, 1912

Recent Experimental Findings in Diabetes (by invitation), Prof. P. A. Shaffer, Washington University.

Hirschsprung's Disease—A Lantern Demonstration of the Clinical History and of the Histology of One Case, Dr. L. Rassieur and Dr. J. McH. Dean.

Saturday, Nov. 30, 1912

Reserved for the Section on Obstetrics and Gynecology.

Saturday, Dec. 7, 1912

Reserved for the Research Department of the Barnard Free Skin and Cancer Hospital.

Saturday, Dec. 14, 1912

Problems of Heredity, Dr. Frank Hinehey.

Saturday, Dec. 21, 1912

Aeromegaly, with demonstration of patient, Dr. L. H. Behrens.

Tubercular Disease of the Shoulder, Requiring Four Operations, with demonstration of patient, Dr. Roland Hill.

What Should the General Practitioner Know About Problems of Modern Brain Surgery? Dr. N. W. Sharpe.

Saturday, Dec. 28, 1912

Relation of the Weight Curve of the Infant to the Food, with lantern slide demonstration, Dr. J. M. Brady.

The Enema, Dr. R. H. Barnes.

Observations of a Recent Visit at Rochester, Minn., Dr. G. W. Broome.

HOWARD COUNTY MEDICAL SOCIETY

Howard County Medical Society met at 2:00 p. m., Friday, October 4, with the president, Dr. Doke Gentle, of New Franklin, in the chair.

Drs. Payne, Richards, Bonham, Lewis, Gentle and Watts were present.

Minutes of the September meeting were read and approved.

There were no clinical cases presented and no papers read or discussed.

The next session will convene November 1, at 2:00 p. m. for the purpose of electing officers for 1913.

The society adjourned at 3:30 p. m.

C. W. WATTS, M.D., Secretary.

JACKSON COUNTY MEDICAL SOCIETY

The Jackson County Medical Society started its fall and winter's work with the spirit and vim that generally characterizes the undertakings of that very active body. The clinical evenings of this society are noted for their instructive work. The programs for October covered the following subjects:

Tuesday Night, Oct. 15, 1912

1. Complications Occurring in Fifty Cases of Appendicitis, Leslie B. Miller.
2. Idiosyncrasy to Common Foods, Edwin H. Scherer.

Tuesday Night, Oct. 22, 1912

CLINICAL PROGRAM IN PEDIATRICS—PRESENTATION OF CASES

1. Ectopia Vesicae-Implantation of Ureters, D. E. Broderick.
2. Chondrodystrophia Hypertrophica, J. E. Hunt.
3. Family Paralysis, C. S. Merriman.
4. Multiple Rhabdomyoma of Infant Heart, E. H. Schorer.
5. Difficult Artificial Feeding, Frank C. Neff.

EYE, EAR, NOSE AND THROAT SECTION

Thursday Night, Oct. 10, 1912, 8 p. m. with Noah Adams, 1003 Rialto Bldg., Tel. M. 4493

1. Acute Suppurative Otitis Media in Infants, J. W. Beil.
2. Corneal Ulcers, W. H. Schutz.
3. Medical Japan, Hal Foster.

Dr. W. J. Walker has been elected secretary County Medical Society to fill the vacancy caused by the resignation of Dr. R. E. Castelow who was appointed superintendent of the Kansas City General Hospital. Dr. Walker's address is 402 Argyle Building, Kansas City.

LACLEDE COUNTY MEDICAL SOCIETY

The Laclede County Medical Society met at Lebanon on Tuesday, September 10, with ten physicians of the county present and Dr. W. R. Beattie, of Marshfield, as a visitor.

Dr. J. M. Billings of Lebanon read an interesting paper on fractures. The doctor called attention to the fact that we get very little help in the treatment of fractures from clinics and that very little is said about their treatment in our society meetings; still fractures are the cause of more damage suits than any other one cause.

Dr. W. R. Summers read a paper entitled "How I Treat Typhoid Fever." This called forth quite a lively discussion as to the relative value of the different antiseptics.

Dr. W. R. Beattie presented a very interesting paper on "Ileocolitis," which brought to our attention some very useful knowledge and was especially enjoyed because of the doctor's kindness in attending our meeting and reading his paper.

The doctors ate dinner together at the Laclede Hotel and spent a very enjoyable day.

The following resolution on the death of one of our physicians was adopted:

WHEREAS, Death has removed from our ranks Dr. J. M. Perkins of Lebanon, a physician who has been identified with the medical profession for thirty-five years and who through his earnestness, energy and generosity has endeared himself to the people of Lebanon and Laclede county, therefore be it

Resolved, By the Laclede County Medical Society that it express to the family of Dr. Perkins the sympathy of its members in this time of sorrow.

Adjourned to meet at Stoutland the second Monday in December.

J. A. McCOMB, M.D., Secretary.

MONITEAU COUNTY MEDICAL SOCIETY

The Moniteau County Medical Society met in the office of Dr. P. E. Williams at Tipton, Thursday, Sept. 18, Dr. Williams, vice-president, in the chair.

Present were Drs. Freudenberger, Wilson, Fry, Williams and L. L. Latham.

No papers were read but several interesting clinical cases were presented.

Dr. Fry presented a patient who had nasal polypi and had a chain of distressing symptoms which were probably of reflex origin.

Dr. Williams presented a case of congenital deformity of the iris in a child about 9 months old. There were irregular oval shaped pupils that would not react to light nor accommodation but as far as could be discovered in a child of that age, there was no defect in the vision.

Dr. Freudenberger also presented an interesting clinical case.

Tipton was selected as the place for the next meeting, Dec. 12, and every effort will be made to make it an interesting meeting. We expect to have a prominent surgeon from St. Louis, deliver a practical lecture on "Fractures and Dislocations, and Their Treatment," and a well known surgeon from Kansas City has also promised to be present to make a practical talk on some subject of special interest to the country practitioner. We also hope to have Dr. Goodwin with us on that occasion and will have a public session at night and a lecture by Dr. Goodwin on some subject of interest to the city.

We cordially invite any neighboring physicians to meet with us on the date mentioned—December 12.

L. L. LATHAM, M.D., Secretary.

SCHUYLER COUNTY MEDICAL SOCIETY

Schuyler County Medical Society met in regular session, October 7, meeting called to order by the president, Dr. W. F. Justice.

Members present: Drs. W. F. Justice, W. B. Hight, W. H. Zieber, H. E. Gering, A. J. Drake and J. B. Bridges.

Dr. H. E. Herwig read a paper on the medical treatment of Internal Fibroid, and Dr. W. B. Hight read a paper on the surgical treatment of the same subject. Both were interesting papers and were discussed by the members present. J. B. BRIDGES, M.D., Secretary.

ST. JOSEPH-BUCHANAN-ANDREW COUNTY MEDICAL SOCIETY

Regular meeting of the St. Joseph-Buchanan-Andrew County Medical Society, held at their rooms Wednesday evening, October 2. Dr. J. I. Byrne in the chair. Twenty-three members were present.

Dr. W. J. McGill, chairman of a committee investigating to find a suitable place in which to hold the regular meetings of this society reported that his committee had made an inspection and received option on the use of the following quarters: Public Library Building, The Old Y. M. C. A. Building, King Hill Building.

The room in the Public Library Building was offered the use of the society, free of rent. The only expense necessary would be that for having the necessary electrical wiring and installation of the connections to permit the use of the Projectoscope, which the chairman estimated would cost between fifty and one hundred dollars.

The Old Y. M. C. A. Building can be had at about any price the association is willing to pay for the use of it.

A room in the King Hill Building was available for Saturday nights only.

The proposition was discussed by various members and on motion of Dr. Ladd, seconded by Dr. Beck, the committee was continued and instructed to investigate quarters in the Corby-Forsee Building and report at the next regular meeting.

On motion of Dr. Ladd, the president was instructed to appoint a laboratory committee which motion having carried the president appointed the following members to serve as this committee: Drs. F. H. Ladd, W. J. McGill, O. C. Gebhart, O. B. Campbell, W. L. Kenney.

The following clinical cases were reported: A Case of Magna Colon, by Dr. O. B. Campbell. A Case of Erosion of the Bones of the Ear, by Dr. W. L. Kenney. A Case of Acute Poison in a Child from Eating Fish, by Dr. H. Lee.

None of the essayists being present to read papers as per programme arranged, it was moved by Dr. W. L. Kenney and seconded by Dr. H. Lee, that the chair appoint some member to open a discussion on Nephritis, after considerable discussion including some not very complimentary remarks regarding the attitude of a member permitting his name to appear on the programme and then not be present to carry out his portion of it. The motion was lost.

W. F. GOETZE, M.D., Secretary.

MISCELLANY

REPORT OF SECRETARY TO COMMITTEE ON PUBLIC POLICY AND LEGISLATION OF EXHIBIT ON HYGIENE AND SANITATION AT MISSOURI STATE FAIR, SEPTEMBER 30 TO OCTOBER 4.

The lectures and moving pictures were well attended by the visitors to the Fair. The lecture on cancer by Dr. Lutz, and the lecture on the plague by Dr. P. M. Carrington, of the United States Public Health Service, were especially well attended, the audience numbering 250, although a larger number heard parts of the lectures, as there was a constant flow of visitors to the hall besides those who sat through the entire lectures. These two lecturers exhibited lantern slides, which seemed to assist in holding interest and attention. The other lectures delivered were as

follows: "Typhoid Fever and Water Supply," by Dr. E. H. Schorer, of Kansas City; "Vital Statistics," by Dr. F. B. Hiller, Secretary State Board of Health; "Tuberculosis," by Dr. C. H. Neilson, of the Medical Department of St. Louis University; "Venereal Diseases," by Dr. R. M. Funkhouser, President Missouri State Medical Association; "Trachoma," by Dr. F. L. Henderson, of St. Louis.

Following each lecture moving pictures were shown on such subjects as "First Aid to the Injured," "The War of the Mosquito," "The Fly Pest," "Tuberculosis" and similar topics. These pictures were especially effective in drawing an audience. The lectures were listened to with the closest attention and apparently produced a deep impression on all who heard them. I had many inquiries before and after the lectures as to the time of certain lectures, and other inquiries pointing to the interest of the people in this undertaking. It was the general sentiment of the secretary and the managers of the Fair that the work inaugurated in this way was of the highest possible benefit and a strong attraction for the Fair.

The exhibit consisted of displays by the State Pure Food and Drug Commissioner, State Board of Health and State Veterinarian, which included some specimens from the State Veterinary College and the St. Louis Board of Health.

The exhibit of the veterinarian included some fresh specimens of diseased meats. These specimens attracted remarkable attention. The people seemed to be deeply impressed with the thoughts of being imposed on by unscrupulous dealers.

Unfortunately other educational agencies were scattered over the grounds and much of the effectiveness of the undertaking was thereby lost. Of these are the following:

1. The Board of Charities and Correction.
2. State Hospitals Nos. 1, 2, 3 and 4.
3. State Tuberculosis Sanitarium.
4. State Industrial Home for Girls.
5. Federal Soldiers' Home.
6. Confederate Soldiers' Home.
7. The State Training School for Boys.
8. The State University and possibly others that I did not find.

I want to express special emphasis on the presence and lecture of Dr. Carrington of the United States Public Health Service. I noticed considerable satisfaction among the people when they learned that the United States Government had shown interest to this extent for the instruction of the people concerning health conservation in the human.

If this endeavor is to be repeated next year I would recommend that efforts be put forth to obtain from the proper authorities an appropriation sufficient to permit the employment of assistants to demonstrate the articles on exhibition and pay the necessary expenses of installing and

conducting the exhibit, including the expense attached to delivering lectures and showing moving pictures. An advertising propaganda should precede the opening of the Fair and proper advertising matter distributed on the grounds and permanent signs plainly directing attention to the character of the exhibit. Some of the exhibits at this Fair had no sign to indicate what was being shown.

It was the unanimous opinion of everyone with whom I discussed the subject that all health and educational agencies should be concentrated in one building. The building should provide hospital facilities, lecture room and other conveniences adaptable for effective dissemination of information on the conservation of human health and life. Mr. Stinson and Judge Scheyne, of Sedalia, agreed with this view and even suggested the plot of ground on which to erect the building.

At present, the State University has a building of its own. It is located off the main thoroughfare and not readily found except by persons who are primarily interested in educational work.

The especial thanks of our Association should be extended to Prof. John R. Kirk, Superintendent of the Normal School at Kirksville for his earnest cooperation. He furnished the moving picture machine and allowed Mr. Burrows, a member of his faculty to attend the Fair with the purpose of operating the machine. Unfortunately for us, and doubly so for Mr. Burrows, he was compelled to return home immediately on his arrival in Sedalia because of a fire that partially destroyed his home and made his presence there necessary. This unfortunate circumstance added to the expense of the undertaking, as I was forced to employ a local operator at the cost of \$10 for the entire period.

Other deterrent circumstances occurred, which it is not necessary to detail and which we overcame to the best of our ability through the hearty cooperation of Mr. Crampton of the State Board of Health; Dr. Ward, Deputy State Veterinarian; Mr. Halberson, State Chemist in charge of the Pure Food Exhibit, and Mr. Stinson, Secretary of the Fair. Dr. Stone, State Bacteriologist was present during one day and demonstrated the tubercle bacillus.

E. J. GOODWIN, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

PLAGUE BACTERIN, a *Bacillus pestis* vaccine, marketed in single-dose vaccination. One c.c. ampules containing 5 billion killed *B. pestis*. Also marketed in two-dose vaccination, for one immunization. One c.c. ampules containing respectively 1 billion and 2 billion killed *B. pestis*. The second dose is to be injected from seven to ten days later or when the reaction to the first injection has subsided. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, Oct. 12, 1912, p. 1377).

STAPHYLO-STREPTO-BACTERIN MIXED is a mixed vaccine marketed in a package of four syringes containing increasing doses of killed *Staphylococcus pyogenes aureus*, killed *Staphylococcus pyogenes albus* and killed streptococcus. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, Oct. 12, 1912, p. 1377).

DIPHTHERIA ANTITOXIN, U. S. P., marketed in syringes containing 1,000, 2,000, 3,000, 4,000 and 5,000 units; also in bulbs. Diphtheria antitoxin globulin marketed in syringes containing 1,000 units. Cutter Laboratory, Berkeley, Cal. (*Jour. A. M. A.*, Oct. 12, 1912, p. 1377).

DIETRE DIFFERENTIAL TEST consists of tubes containing respectively Tuberculin O. T.; Tuberculin B. F. human, and Tuberculin B. F. bovine. Cutter Laboratory, Berkeley, Cal. (*Jour. A. M. A.*, Oct. 12, 1912, p. 1377).

TUBERCULIN O. T. (DILUTION) VON PIRQUET'S REACTION, marketed in packages containing ten capillary tubes and one ejecting bulb. Cutter Laboratory, Berkeley, Cal. (*Jour. A. M. A.*, Oct. 12, 1912, p. 1377).

GLYCERINATED VACCINE VIRUS is a vaccine virus marketed in packages containing respectively five and ten capillary tubes. The Slee Laboratories, Swiftwater, Pa. (Abbott Alkaloidal Co., Chicago) (*Jour. A. M. A.*, Oct. 12, 1912, p. 1377).

BISMUTH BETANAPHTHOLATE, MERCK, is a non-proprietary article and complies with the tests laid down in New and Nonofficial Remedies for Bismuth Betanaphtholate. Merck & Co., New York (*Jour. A. M. A.*, Oct. 12, 1912, p. 1377).

REFORM IN MEDICINES

THE UNRELIABILITY OF UNIMPORTANT DRUGS.—Using the findings of the A. M. A. Chemical Laboratory W. A. Puckner discusses the unreliability of unofficial and little used medicines. He points out that, while none would sell these articles under grossly false claims or would adulterate them, because the profits to be derived from their sale is more than offset by the danger of detection, this small demand also operates in another way. The conditions which make it unwise to sell such non-proprietary drugs dishonestly also appear to make it impracticable for the legitimate dealer to go to the pains of furnishing an article that is pure and reliable (*Jour. A. M. A.*, Sept. 28, 1912, p. 1156).

DESIRABILITY OF A MORE RESTRICTED MATERIA MEDICA FROM THE STANDPOINT OF THE PHARMACIST.—H. P. Hynson points out that it is quite impossible for the pharmacist to guarantee the quality of the very large number of drugs which he must handle. In order that the pharmacist may perform his full duty to the physician it is urgently demanded that there be some limitation in the needless duplication of medicinal preparations (*Jour. A. M. A.*, Sept. 28, 1912, p. 1158).

DESIRABILITY OF A MORE RESTRICTED MATERIA MEDICA FROM THE POINT OF VIEW OF MEDICAL INSTRUCTION.—E. LeFevre holds that the present medical curriculum is by far too extended, so that it is practically impossible for the students to give sufficient time and attention to many fundamental subjects, because many others of minor importance have been introduced into it. It is pointed out that the teacher gives much time

to unimportant drugs because questions concerning them are asked by state licensing boards and that these feel obliged to require familiarity with such unimportant drugs because they are contained in the Pharmacopoeia (*Jour. A. M. A.*, Sept. 28, 1912, p. 1159).

THE DRUGS WE NEED.—O. T. Osborne believes that only a thorough familiarity with useful and valuable drugs, will be a cure for the mistake of using nostrums, proprietaries or absurd pharmacopoeial preparations. He classifies drugs according to the object for which they are used and discusses those which are most valuable for each purpose. In general he is opposed to the use of mixtures and believes that the active drug can generally be given in a very simple manner. He discusses the best drugs for various purposes and omits all reference to "second- and third-rate drugs" and "third- and fourth-rate preparations." Having advised against the indiscriminate use of drugs and argued against the use of the many new drugs recommended as substitutes for well known medicaments, Osborne says: "I am not a drug nihilist. I believe thoroughly in the activity of drugs and thoroughly in their value, but I deplore the profession being fooled by promoters of so-called new drugs and new synthetics, when, if the reliable Pharmacopoeial drug is properly used, it is perfectly satisfactory." He believes that physicians should notice new drugs but that they should do so critically. As regards mixtures he believes that their careful consideration will show the value to depend on some well-known drug only (*Jour. A. M. A.*, Sept. 28, 1912, p. 1160).

USEFUL REMEDIES.—M. I. Wilbert discusses the work of the committee on useful remedies of the Council on Pharmacy and Chemistry. Commenting on the large number of drugs he says that the present-day status of the use of medicines has been designated as consisting of series of vicious circles: Patent medicines are used by the laity because they are advertised by manufacturers, and they are advertised by manufacturers because they are used by the laity. The closely related proprietary medicines are prescribed by physicians because they are advertised in medical journals, and they are advertised in medical journals because this leads to their being prescribed by physicians. Official remedies are official because they are endorsed by text-books, and are endorsed by text-books because they are official. Wilbert explains the method which has been pursued in the compilation of a list of the more valuable drugs and states that, based upon this list, a short manual is in process of preparation. It is announced that the Council eventually will publish a critical review of the actions and uses of the more important and useful drugs (*Jour. A. M. A.*, Sept. 28, 1912, p. 1165).

PERUNA REVIVED.—In 1906, the Peruna Company was notified that it either must put some medicine in Peruna or else Peruna could be sold only in saloons or other places carrying liquor licenses. To avoid classification of Peruna as an alcoholic drink a cathartic was added to it. This cathartic has decreased the sale of Peruna so that where formerly car-load lots were sold it is now sold by the case. In view of this the old style Peruna is again on the market but under the new name "Ka-tar-no" (*Jour. A. M. A.*, Sept. 28, 1912, p. 1204).

A NEW PUBLICITY LAW.—A law is now in effect requiring all newspapers to publish, twice a year, a sworn statement giving the names of their owners and chief stockholders. It also requires them to label as advertisements all editorial and news matter for which they receive pay. Unfortunately scientific periodicals are exempt from its requirements. The law should be made applicable to medical journals as it would be interesting to learn the source from which the financial support of many medical journals is derived. It would also be enlightening to see the "reading notices" and many "original articles" with the tell-tale suffix "(Adv.)." (*Jour. A. M. A.*, Oct. 5, 1912, p. 1299).

THE PROPRIETARY EVIL.—The New York Sun discusses the proprietary evil and its effect on the public. Commenting on the general lack of cooperation among

physicians in the promotion of their interests, this paper commends the action of the Missouri State Medical Association in adopting a resolution which pronounces it derogatory to the best interests of members to publish articles in medical journals whose advertising pages contain fraudulent or questionable advertisements. The *Sun* states that the lay reader cannot realize the importance of this enactment, not for the doctor alone but also for the interests of the public, which is the unsuspecting victim and the greatest sufferer from the abuses this resolution is aimed to correct, the prescription of secret nostrums and other proprietary drugs by physicians. The editorial says: "The credulity of the unthinking doctor is not a whit beneath that of the misguided layman, but it is far more contemptible. For this reason the public needs to be warned against doctors who prescribe drug preparations bearing some definite name or title rather than a regular prescription." (*Jour. A. M. A.*, Oct. 5, 1912, p. 1307).

PHENACETIN AND ACETPHENETIDIN.—"If a prescription calls for 'phenacetin,' should the pharmacist dispense 'phenacetin-Bayer'—that is, the phenacetin manufactured by the original patentee—or would he be justified in dispensing the official acetphenetidin, manufactured by any reliable chemical or pharmaceutical house?" Unless the pharmacist happens to know that the physician in writing the prescription desired the Bayer brand, he would be justified in dispensing acetphenetidin, U. S. P. Physicians in general use the word phenacetin without intending to prescribe any particular brand or make. During the life of the patent the product became generally known as phenacetin. But a coined name for a patented article loses its proprietary character and becomes the common name of the article when the patent expires. In view of these facts—and also bearing in mind the findings of the A. M. A. Chemical Laboratory that the preparation on the market under the title "acetphenetidin" is of equal quality with the preparation sold under the name "phenacetin"—the pharmacist should recognize that acetphenetidin is identical with phenacetin, and that he may dispense the former when phenacetin is prescribed, provided, of course, that no special brand of phenacetin is ordered (*Jour. A. M. A.*, Oct. 5, 1912, p. 1308).

HARMFUL EFFECTS FROM PYRAMIDON.—Exceptional claims are made by the manufacturers for the safety of pyramidon but the literature contains some instances of collapse and alarming symptoms following the administration of this coal-tar product. There is no doubt that the occasional use of an analgesic of this sort for the relief of headache, neuralgia, etc., is beneficial and safe. It is the habitual and uncautious use which must be condemned. In spite of the clinical evidence presented by the manufacturers the positive statement that pyramidon is safer than other remedies of this class is to be questioned. A case of Dermatitis Medicamentosa following the use of Midol, a patent medicine containing pyramidon, is reported (*Jour. A. M. A.*, Oct. 5, 1912, p. 1309).

SAMUELS RETURNS TO WICHITA.—"Professor" Samuels, who dispenses a weak solution of sugar and salt at \$5 an ounce for the cure of all known diseases, has returned to Wichita, Kansas. Some months ago he left the western city and transferred his mail-order business to Detroit, but Detroit was too hot for this quack and he therefore has returned to Kansas and is now doing business at the old stand. The authorities in Kansas should adopt the efficient procedure which drove this quack from Michigan (*Jour. A. M. A.*, Oct. 12, 1912, p. 1390).

THERAPEUTIC VALUE OF AGMEL.—Agmel is said to be a concentrated syrup made from the juice of the maguey, or century plant, *Agave americana*. Chemical examination (reported to the Council on Pharmacy and Chemistry) showed it to be a kind of molasses containing a small quantity of formic acid which probably represents the sole medicinal constituent of the preparation (*Jour. A. M. A.*, Oct. 12, 1912, p. 1392).

CARTER'S LITTLE LIVER PILLS.—These are claimed to "cure constipation, biliousness, sick headache and indigestion." A typical advertisement says: "Do not persecute your bowels. Cut out cathartics and purgatives. They are brutal—harsh—unnecessary." But while thus claimed to be free from purgatives, the analysis of this nostrum, published in "Secret Remedies," vol. 2, by the British Medical Association indicated the presence of podophyllin, licorice root, aloes and wheat starch (*Jour. A. M. A.*, Oct. 19, 1912, p. 1472).

D. D. D.—This is a nostrum exploited as an eczema cure both here and in England. As sold in the United States, each ounce contains, according to the label, as required by the Food and Drugs Act, chloral hydrate 7 gr. and alcohol 38 per cent. D. D. D. as sold in England does not contain chloral probably because the laws of Great Britain require that products containing such dangerous drugs as chloral be provided with a poison label. An analysis made by the British Medical Association, published in "Secret Remedies," vol. 2, indicated the following composition: salicylic acid, 0.75; carbolic acid, 1.18; oil of wintergreen, 1.00; glycerin, 9.28; alcohol, 65.10 and water 22.69 (*Jour. A. M. A.*, Oct. 19, 1912, p. 1472).

CELMO.—Celmo, a patent medicine sold as a cure for rheumatism, shows how a commonly-used, well-known drug may be put out under a fancy name, exploited by fraudulent claims and foisted on the public as something entirely new. While sold as an entirely new method of treating rheumatism an analysis made by the British Medical Association and published in "Secret Remedies," vol. 2 indicates that its chief constituent is the widely used acetyl-salicylic acid or aspirin. The analysts reported this "wonderful new remedy" to consist of: acetyl-salicylic acid, 35.5 per cent.; powdered charcoal, about 8.0 per cent.; malt extract, dry, 18.0 per cent.; tale, 14.5 per cent.; other mineral constituents 2.8 per cent.; water, 12.3 per cent.; alkaloid, 0.5 per cent.; extractive, about 8.0 per cent.; oleo-resin of capsicum, trace, and oil of juniper, trace (*Jour. A. M. A.*, Oct. 19, 1912, p. 1472).

BROWN'S BRONCHIAL TROCHES.—Brown's Bronchial Troches, sold by John I. Brown, Boston, belong to the "cough lozenge" type of nostrum and are harmful only in a negative way in that they may be used to allay symptoms of what may prove to be an incipient lung or throat trouble of a serious nature. According to the analysis published in "Secret Remedies," vol. 2, these troches contain: powdered eubeb, extract of licorice, gum and sugar (*Jour. A. M. A.*, Oct. 9, 1912, p. 1472).

ANTIKAMNIA IN AMERICA AND GREAT BRITAIN.—Examination in the A. M. A. Chemical Laboratory of a specimen of Antikamnia just received from London showed it to contain acetanilid but no acetphenetidin and thus to differ from the Antikamnia now sold in the United States which contains acetphenetidin but no acetanilid. This examination was made because the Antikamnia Chemical Company had claimed that the Antikamnia formula was the same for all countries and had threatened with suit for libel. While the protestation of the Antikamnia promoters probably indicates that the composition of the English Antikamnia will be changed in the near future a study of the Antikamnia advertisements in English medical journals shows that the British medical profession is not being apprised of the proposed change (*Jour. A. M. A.*, Oct. 26, 1912, p. 1550).

DIORADIN REFUSED RECOGNITION.—Dioradin was first submitted to the Council on Pharmacy and Chemistry in July, 1911. Because of the manifestly unwarranted claims made for its therapeutic value in the treatment of tuberculosis, the Council voted that the product be refused recognition without at that time considering the possible conflicts with other rules of the Council. Reform in the method of advertising having been promised by the American agent, the Council, when requested to give further consideration to Dioradin, considered the available evidence regarding the identity and value of

the preparation. Examination of the evidence regarding the composition of Dioradin—claimed to consist of radium chlorid, iodoform and menthol in an ether-oil solution—showed serious discrepancies as to the amount of radium as well as to the identity and amounts of other constituents. It was further found that the experimental evidence was insufficient and biased. Then, too, in view of the difficulty of judging the effects of medicines in tuberculosis, the clinical data were unconvincing. There was nothing to indicate that the reported improvements even if they occurred could be ascribed to the mixture as a whole rather than to any one of its constituents. As a result of the findings the Council voted that Dioradin be refused recognition (*Jour. A. M. A.*, Oct. 26, 1912, p. 1556).

BOOK REVIEWS

DOMESTIC WATER SUPPLIES FOR THE FARM. By MYRON L. FULLER, S.B., Specialist on Underground Water Supplies, formerly in charge of Underground Water Supplies in Eastern United States for U. S. Geological Survey, Author of "Underground Waters in the Eastern United States," etc. 8vo pp. 180. Illust. Cloth \$1.50 net. New York, John Wiley & Sons. 1912.

A thoroughly practical book for the modern farmer. It is concise and has no technical verbiage which would conceal its meaning for all but the specialist. The object of the volume is to explain in an understandable way the importance of the water supply to the agriculturalist, pointing out the dangers that threaten it, and the best ways of safeguarding the source of water supply.

The book contains twenty-two chapters and takes up all phases of the water supply from the standpoint of the farmer.

PRACTICAL METHODS OF SEWAGE DISPOSAL FOR RESIDENCES, HOTELS, AND INSTITUTIONS. By HENRY N. OGDEN, M.Am.Soc.C.E., Professor of Sanitary Engineering, Cornell University, and H. BURDETT CLEVELAND, Assoc. M.Am.Soc.C.E., Principal Assistant Engineer, New York State Department of Health. 8vo pp. 132. Illust. Cloth \$1.50 net. New York, John Wiley & Sons. 1912.

The seven chapters comprising this book contain all that is to be said on sewage disposal that can be of any interest to the average householder. The volume is practical in every sense of the word and adequately fills the want for which it was designed.

The chapters follow: Introductory, containing general discussion of sewage problems, action of bacteria, etc.; the settling tank; valves, siphons, and siphon chambers; sub-surface irrigation; sewage filters; broad irrigation; estimates of cost.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M.D., AT MERCY HOSPITAL, CHICAGO. Volume I. Number IV (August). Octavo of 154 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1912. Published Bi-Monthly. Price per year: Paper, \$8.00. Cloth, \$12.00.

These publications are verbatim stenographic reports of the proceedings of Dr. Murphy's clinics conducted before his class. The reports are printed just as they are found in the reporter's note book, consequently they contain every word spoken in the clinic; every query, every answer, and teem with the spirit of the clinic. They possess a kinetoscopic vividity. As one reads he becomes one of the spectators, and sees the operator, the patient, the attendants; the odors of the anesthetic fill his nostrils and he is conscious of the air of suppressed interest that pervades the amphitheater. We have here a series of rare documents in which no detail is slurred and no step neglected.

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ORIGINAL ARTICLES

IDIOSYNCRASY TO COMMON FOODS *

EDWIN HENRY SCHORER, M.D.
KANSAS CITY, MO.

The causes of disease are usually divided in the two broad groups of predisposing and actual. Of these the predisposing factors reduce or lower the vital and physical powers of the body; the actual causes are the ones that produce what we really regard as the disease.

The predisposing factors include age, race, occupation, sex, hygienic conditions of environment, food, clothing, conjugal relations, density of population, heredity and, finally, connate conditions, which include temperament, diathesis and idiosyncrasy.

The vital causes I need not enumerate except to say that they belong to the classes of chemicals, physical agents and living forms of plants and animals to which we ascribe the power of actually producing disease.

Foods include the various substances that we take into the body, usually through the mouth, so that we may build new tissue, restore the tissue that has been broken down, and furnish energy. There seldom is much question as to whether a substance is a food or not, and even though there have been controversies about alcohol, coffee, tea and so on, still we have a large number of substances which, because of their fat, proteid or carbohydrate content, are generally accepted as being food.

Proper foods should not cause inconvenience to the consumer, but for various reasons this is not always the case. Generally foods cause disease because they are not of proper quality and contain harmful substances; and again, foods of good quality may cause disease because they are not properly chosen, prepared and modified. We now have good knowledge of the requirements of

diets and foods although of course we do not always use this knowledge. It is furthermore known to us that perfectly proper food may cause active disturbance in some people. Strawberries, cheese, oat-meal, crab meat and various other foods produce in some people the symptoms and signs of urticaria. These manifestations of urticaria have generally been ascribed to idiosyncrasies to certain food.

Within recent years our attention has been called to peculiar reactions on the part of the animal body to the introduction of certain foreign substances. Jenner, in his work on vaccination against small-pox, observed that a person who had been successfully vaccinated, on revaccination, showed within a short time a local reaction at the point of vaccination, which local early reaction did not occur in the individual when he was vaccinated the first time. This observation was lost until recently, when, due to the accurate and honest protocols of Jenner, it was found that Jenner was really the first to have noticed and commented on allergy.

Koch, in his work on tuberculosis, demonstrated that while a healthy guinea-pig shows no effects of injection of tubercle bacilli for some twelve days, a tuberculous guinea-pig, on injection with either dead or living tubercle bacilli, within twelve to twenty-four hours has a marked reaction at the point of injection. He further found that while a normal guinea-pig can tolerate 2 c.c. of his original tuberculin, 0.5 c.c. will kill a tuberculous guinea-pig in twelve to twenty-four hours. Von Pirquet, observing the local reaction following the cutaneous and subcutaneous injections of tuberculin in tuberculous individuals, felt warranted in looking forward to the diagnostic value of local reactions in the various infections. Since then these methods have been applied for the diagnosis of typhoid fever, gonorrhea, syphilis and other infections. In 1903, Arthus observed that some of the rabbits receiving repeated injections of horse-serum, developed ulcers at the point of injection. Theobald Smith observed that the second injection of

* Read before the Jackson County Medical Society, Oct. 15, 1912.

diphtheria toxin-antitoxin produced sudden death in some guinea-pigs. Then in 1905 appeared the work on serum disease by v. Pirquet and Schick and Rosenau and Anderson. In the past few years the special effects of common foods, in what has been called idiosyncrasy, have been studied with the result that some of these are to be ascribed to allergy.

Allergy, anaphylaxis, or altered power of reaction, appears generally after an incubation period of from five to twelve days after the first sensitization. Less substance is needed to sensitize than to produce the reaction. Probably there is never actual increased susceptibility to the same substance, but only an altered power of reaction.

The result of the reaction varies: urticarial and erythematous eruptions, edema, weakness, fever, headache, swelling of glands, pains in joints and diarrhea, any of these may occur. The substances that call forth or produce allergy are proteins or substances inseparably connected with proteins.

The various theories advocated by von Pirquet and Schick, Rosenau and Anderson, and Gay and Southard, I need not take up separately, but may say that it is quite generally believed that the sensitized individual becomes so because substances resembling amboceptors break up the particular protein material so rapidly that toxic substances are formed and liberated in poisonous doses; while in the normal individual the process of breaking up is so low as to cause no intoxication. This hypersensibility is merely a part of the process of immunization.

As is the case in other processes of immunity, allergy may be natural or acquired, and the acquired may be active or passive.

Some of the idiosyncrasies to foods have been classed with natural allergy, but it is questionable whether it is not always due to an earlier sensitization. It is hard to determine whether an idiosyncrasy was observed the first time the particular food was eaten. The best evidence that it is acquired rather than natural is that in some cases of idiosyncrasies it can be transferred or transmitted to other animals or persons through serum and so on; that is, a passive idiosyncrasy to certain foods may be acquired. Natural immunity cannot be transferred through serum and we have reasons to believe that the same is true of natural idiosyncrasy.

At various times I have had opportunity to observe peculiar reactions or idiosyncrasies to common foods, as well as other closely allied phenomena. A few of these cases and the case of Schloss¹ are given here.

CASE 1.—The patient was a child seven months old. It had been breast-fed for about three months when it had a diarrhea. At this time the physician fed the child on egg albumin and water for three days, after which he again let the child nurse. When brought to the

hospital it had had what we called a "dyspeptic diarrhea" for about two months, and was much emaciated. During the illness various diets had been tried. On admission calomel was given and feedings of albumin two drams and rice water in sufficient quantity to make three ounces were ordered. After leaving the ward the mother told the nurse the baby could not take egg albumin. This was reported to me, so a trial feeding of a smaller amount of albumin and boiled water was made and in about one-half hour the child vomited profusely, had a swollen face and marked dermatographia. This lasted until morning. The child showed no idiosyncrasy to milk or the cereal waters and we regarded it as a case of idiosyncrasy to egg albumin. It apparently had been actively sensitized to egg albumin when three months old.

CASE 2.—Three years ago I saw a young girl who had eaten the lettuce of a lobster salad and in about twenty minutes became faint and had marked swelling of the hands, feet and face. There was no vomiting, though she was nauseated and said her tongue felt thick. She had marked dermatographia. This all disappeared in about sixteen hours, which was said to be the usual time of her illness after eating lobster. This case might be regarded as one of natural idiosyncrasy to lobster, although I did not learn whether she has ever been able to eat lobster without symptoms.

CASE 3.—Schloss of New York, recently reported the case of a child eight years old. It had been breast-fed eighteen months, but supplementary feeding was begun when one year old. At three months the child had seborrheic eczema, and at nine months had a severe coryza. Had rickets, and had frequent colds which at the outset resembled hay fever. Had asthmatic attacks. For some time the child had a chronic scaly rash which at times involved the entire body. The following peculiarities to foods were observed:

Egg: When ten days old egg and barley water were fed without producing symptoms. When egg was given the next time the child was 14 months old, and even though this was a soft boiled egg a marked disturbance with vomiting and urticaria followed. At 22 months the feeding of one-eighth of an egg produced almost immediate symptoms. The child could not take cakes made with egg nor even play with egg shells without discomfort.

Almonds: When 6 years old, ate almonds and soon had the characteristic symptoms observed with eggs. Other nuts did not produce this effect.

Oatmeal: When 22 months old used oatmeal jelly and got mild symptoms. The reaction consisted especially of swelling of the tongue, lips and face, and vomiting. Urticarial wheals usually appeared about the mouth. These symptoms in some instances occurred immediately after taking food.

This case was clearly one of acquired allergy, which was not specific to the particular food that apparently caused the hypersensibility.

CASE 4.—During the past few months there has been under my observation a child 22 months old, well formed, good development and good health, except for seborrheic eczema. The stools vary from two to four in twenty-four hours and are normal. The mother is 37 years old, has had four pregnancies, the first of which resulted in still-birth, the second in abortion, the third is the patient under consideration and the fourth pregnancy was terminated at six and one-half months because of albuminuria. The mother has had albuminuria with all but the first pregnancy. The child was breast fed for three months, then had the modification of cow's milk for a child two and one-half months old, after this Mellins Food for six months. When 10 months old an attempt was made to wean the child. When solid food was taken urticaria appeared. When 13 months old egg and soft diet were given, from which time on there have been repeated disturbances.

1. Schloss: *Am. Jour. Dis. Child.*, 1912, iii, 341.

The idiosyncrasies are: Egg, oatmeal and graham crackers all produce distention. When the child was younger it vomited during these attacks, but now has "cold in head," puffiness under the eyes, and wheals especially on the wrists.

The mother has somewhat similar idiosyncrasies. Egg, oatmeal, milk and butter-milk after about twelve hours cause severe headache, muscle-soreness and joint pains. She has always had "hives." She is never constipated.

In this case I have tried some of the skin tests to detect hypersensibility as was done by Smith, Schmidt and Schloss. Egg albumin, egg yolk and oatmeal were used in the tests—the technic of which is as for the von Pirquet tuberculin skin test. In addition to the regular control tests I tried the tests on the nurse and myself. The nurse one and one-half years ago had diphtheria antitoxin and one year ago had typhoid vaccine. Small-pox vaccinations have never been successful. I myself received antidysenteric serum experimentally in 1903 without reaction and tetanus antitoxin in 1908. This latter injection of horse-serum was followed by a marked serum sickness.

The results of the tests are shown in the following table:

	Egg Albumin	Egg Yolk	Oatmeal
Billie	++	+	++
Mrs. N.	++	+	++
Miss H.	Discomfort	Discomfort	Discomfort
E. H. S.	Negative	Negative	Negative
	++	±	Negative

The idiosyncrasies here are interesting, the essential points being that the mother has always had "hives," has idiosyncrasies to egg, oatmeal and milk, and has had albuminuria in three pregnancies. The child has had urticaria and other signs of idiosyncrasy since egg, oatmeal and graham crackers were first taken. Whether the albuminuria has any relation to this idiosyncrasy I cannot say, but it seems evident that the idiosyncrasies of the mother have been transmitted to the child.

CASE 5.—Recently a strong, well developed boy, 12 months old came under my observation. At birth, the mother says, he had a skin eruption. The child was breast-fed exclusively for six months and since then has had oatmeal, eggs, bread and crackers. From the time of birth the child is said to have had transitory eruptions which caused him to scratch his ears and face. The eruption was said to come on suddenly and disappear suddenly after lasting several hours. On July 5 I saw the child during a marked urticarial attack, the wheals being distributed especially over the head, abdomen and hands. The child was very uncomfortable, breathing with some difficulty and scratching its ears, face and hands. All feeding except nursing was stopped and in six hours the skin was quite clear and all difficulty of breathing had disappeared. On trying the different foods it was evident that oatmeal was the principal cause of trouble, although eggs and scraped beef also causes some symptoms. On this patient and the mother the skin tests were tried; the results obtained are shown in the following table:

	Egg Albumin	Egg Yolk	Oatmeal
G.	Slight reaction 5 min.	Negative	Immediately
Mrs. G.	Negative	Negative	5 minutes.
E. H. S.	Very marked reaction in 4 hrs.	Negative	10 minutes very marked reaction in 4 hrs.

The most marked reactions in the mother and child were found with oatmeal. The mother formerly used oatmeal, but for some years has had an aversion to it, not eating it because it produced nausea. It is also to be noted that I reacted somewhat to oatmeal, while

I did not six days ago, apparently having been sensitized by the former test. My reactions to egg albumin and oatmeal were marked in four hours, there being wheals and a burning sensation which all disappeared in twelve hours.

It is hard to say whether the mother has transferred allergy to oatmeal to this child, her two other children showing no such reaction. It is important to observe the symptoms of "cold" in this child because the coryza is not due to cold, but to edema.

The various idiosyncrasies to common foods that are to be classed with allergy are due to sensitization to proteid. A sensitized patient has idiosyncrasies to a greater or less degree to the following common foods: egg albumin, oat-meal, barley, rye, rice, meats, certain nuts and bananas, in addition to the seeds of prunes, peaches, strawberries, apples and cherries. Heat apparently does not so change foods that they do not produce urticaria, nor does it influence the cutaneous reaction. The tissues most and earliest affected are usually those with which the foods come directly in contact. The occurrence of asthma and bronchitis in these patients is rather frequent. Rosenau and Anderson emphasized the fact that the injection of horse-serum in asthmatics might be attended with danger. There is thus a possibility that idiosyncrasy to foods is not entirely dependent on the sensitizing substance, but that the peculiarities of the individual also play some part. The reaction in the tissues is not unlike that in angio-neurotic edema. A few years ago I saw an interesting case which stands on the border line between allergy and angio-neurotic edema.

A man about 6½ feet tall, had two years before married a young girl about 5 feet in height. About one year after marriage a large baby was born after a difficult and long labor. The first attempt at coitus, after the mother had recovered, called forth a marked eruption on the thighs, abdomen, chest and arms of the mother. After several hours she again felt comfortable. No evidence of the attack in the evening was visible the next morning. From that time on until I saw her, contact of the husband's body with any part of her body ordinarily covered by clothing called forth an urticarial eruption. She did not react to contact with the hands or body of her child or persons other than her husband. It has been impossible for me to get further information concerning the case.

The various idiosyncrasies to common foods are of considerable importance because of the disturbance they produce and because they interfere at times with the best feeding of children and sick adults. For these reasons it is important to diagnose the particular substances to which there are idiosyncrasies and to overcome them if possible.

For diagnostic purposes the clinical observations are not always satisfactory, for it is impos-

sible usually to restrict the diet to a single food, because the disturbances may be severe, and furthermore some of the symptoms and signs of idiosyncrasies to foods are also seen in other conditions. The cutaneous test apparently offers a more accurate method for diagnosis. The substances to be tested are placed on the skin, then an abrasion is made with the borer of von Pirquet or with a needle as in vaccination. The substances are gently rubbed in. An abrasion must also be made to serve as a control to avoid confusion with dermatographia and edema following an abrasion not inoculated with the specific substance. Simple abrasion with the borer is not as likely to produce edema as is a scratch. There usually is no difficulty in recognizing a positive reaction.

A few years ago Wright found that in urticaria following indigestion and the eating of foods for which the person had an idiosyncrasy, the time necessary for the coagulation of the blood of the patient was increased, and on this basis he advised the use of calcium lactate. This has been used with more or less success. During the last few years attempts have been made to immunize patients with idiosyncrasies to common foods by gradually increasing administrations of the foods to which there is allergy. A number of such cases are now on record. Schloss, although his patient was sensitive especially to egg, almonds and oat-meal, used only the ovo-mucoid to which his patient was most sensitive. He gave first 2 mg. of ovo-mucoid in capsules three times a day, the dose was gradually increased and the progress of immunization was determined by the cutaneous reaction which gradually became less. In about two and a half months the patient was taking 1 gm. of ovo-mucoid a day and was able to eat a half egg without disturbance. Strangely soft-boiled egg still caused some stinging in the mouth, but no other symptoms. Oatmeal no longer caused disturbance, though almonds still produced wheals at times. Schloss believes that the sensitization in his patient "was not to distinct proteins of the egg, but to some constituent group common to the toxic proteins."

Prophylactic measures against the condition seem possible. Egg and oat-meal apparently are especially prone to sensitize so that for the past two years I have tried to eliminate these foods from the diets of children until they could take them regularly. In this I have succeeded by using skimmed milk in place of egg albumin and rice and barley water instead of oat-meal water. Furthermore, an attempt has been made to feed children only on such foods as they can get and use over a considerable period of time.

Rialto Building.

THE VALUE OF BEGINNING PASSIVE MOTION VERY EARLY, FOLLOWING FRACTURES IN OR NEAR JOINTS *

CARROLL SMITH, M.D.

AND

H. S. MCKAY, M.D.

ST. LOUIS

It must be acknowledged by those familiar with fracture work, that the results in fractures are not always all that one could wish. We have not been satisfied with poor results in the surgery of other structures and consequently much has been done to advance the surgical treatment of injuries and diseases of the soft tissues. It is only a few years ago that the surgeon who opened the cranium or abdomen was severely criticised, and those who were fearless enough to brave popular opinion were really responsible for much in the development of our modern methods in dealing with surgical conditions in these regions.

In the treatment of fractures very little advancement has been made in many years. The x-ray has shown how poor many of the so-called good results were. Lane, in 1894, began to advise the open treatment of fractures. By the use of his bone-plate, he has been able to gain almost perfect anatomical results. While his methods raised a storm of protest from those fearing the danger of an infected compound fracture being made from a simple one, the treatment has grown in popularity. In America the plate has not been used so extensively as in Lane's work; nevertheless, it must be acknowledged that in certain cases the method is ideal when proper operating facilities are present. On account of the ease with which such cases become infected, the open treatment should not be undertaken unless one is sure of his surgical cleanliness. Under such favorable circumstances, using the special technic advised by Lane, the danger of infection should be no greater than in surgery of other parts.

However, the after-treatment of fractures is frequently more important than the primary treatment. Many pages are given in text-books describing numerous methods of treatment in these injuries, the number of such methods showing how unsatisfactory they frequently are; but very little mention is made of the after-treatment, and then usually only in a general way.

It is only in recent times that general surgical post-operative treatment has been considered worthy of serious discussion and the after-treatment in fractures is an even more important consideration than in most other surgical procedures. Our attention was forcibly called to this part of fracture treatment by several healed fractures which came to us with good anatomical results, but with joints almost completely ankylosed. We

* Read in the General Session of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, Sedalia, May 21-23, 1912.

have nothing new to offer on the subject, but only wish to call attention to the apparently neglected after-treatment. A good functional result after a fracture, with more or less anatomical defect, is better surgery than a perfect anatomical member with poor function. It is surprising and often the source of much chagrin, how soon joints adjacent to shaft fractures, or in joint fractures, will become fixed, especially if there has been trauma and hemorrhage about the joint. Such fixation can only occur when the joint is still. A hopelessly ankylosed joint is a most unpleasant condition for the surgeon to face. Murphy has done much to advance the surgical treatment of such conditions, but when an operation is necessary to correct joint adhesions after a fracture, we cannot but feel that frequently some one is to blame. It is true that sometimes the fault may lie with the patient who does not give the surgeon an opportunity to carry out proper after-treatment.

Forceful movements to break up stiff joints can only be employed after the fracture union is strong, and this usually means two or three months after the primary injury, during which time the ankylosis is becoming more firm; consequently it is important to prevent the formation of strong adhesions. The early, intelligent use of massage and passive motion is the best way to accomplish this desired result. Lucas-Championnière especially called attention to this subject about twenty years ago, and while all his recommendations are not carried out to-day, his work resulted in much good and placed this part of fracture treatment on a more rational basis.

The time at which massage and passive motion should be begun, and the amount of motion to be used, must be determined by the conditions present. Personal judgment must play an important rôle when employing these measures. Such treatment should not be begun until the primary pain, muscular spasm, and swelling have subsided. At this stage, hemorrhage may be kept up, fragments may be displaced, muscular spasm made worse or fat embolism caused, if the parts are unduly disturbed. Massage must cause no pain. Too early and too much motion may stimulate the formation of excessive callus or lead to non-union. Massage, properly applied, aids the absorption of periarticular and joint effusions, prevents atrophy and weakness, hastens healing, and lessens joint and tendon-sheath adhesions and contractures of ligaments. In shaft fractures it is important to partially remove the dressings and to begin massage and motion to the adjacent joints early. Even after the bone has healed and all the dressings have been removed, it is best to take care of the after-treatment personally. Patients are inclined to spare the injured parts, especially the arm. In some cases the joint can be well mobilized by the time all the supports are finally removed.

Early massage of fractures in the young may lead to excessive callus formation, but since immobilization in children tends to cause but little impairment of function, the after-treatment is not so important.

The use of Lane's bone-plates often permits earlier passive motion, but it should be remembered that softening of the bone occurs about the screws, used in applying the plate, between the fifth and tenth days and also that callus does not form so early nor in such amounts as in cases treated by the older methods. After about the fourteenth day the screws are again firmly held in the bone and then more motion can safely be made than when no plate has been used. Early careful massage, however, seems to do no harm and we believe that it is the source of great benefit in plated fractures.

During the past two years in our work at the Alexian Brothers' Hospital, we have been paying especial personal attention to this phase of fracture treatment and feel that we have been able to get better functional results, even surprisingly early function in some instances. The following cases which we have selected from our fractures, well illustrate what may be accomplished by careful, personal attention to the details in the after-treatment:

CASE 1.—T. B., age 34; entered hospital Feb. 1, 1911, with fracture of right olecranon process. The process was broken completely off, with great displacement of the fragment, considerable edema, which persisted for one week. On the tenth day, through a longitudinal incision, a Lane's plate was placed in position after the broken fragment was brought into correct apposition. Plaster cast applied. This was removed at end of two weeks and gentle massage and passive motion applied daily, the arm being placed in a wire splint. At the end of the fifth week flexion and extension were almost normal. Patient could brush his hair with ease. Pronation and supination practically normal.

CASE 2.—P. K., age 60; came to the hospital with a complete fracture of the shaft of the left humerus about three inches below the surgical neck. X-ray showed displacement and overlapping of fragments. About nine days after the fracture, the swelling having subsided, an incision was made over the site of fracture to side of deltoid and the fragments, after being brought into apposition, were plated. Union per primam. At the end of two weeks the cast was removed and massage with very gentle passive motion begun. The arm was kept at rest by means of bandaging the arm to the chest after each treatment. At the end of five weeks, patient left hospital and at the end of six weeks there was practically no limitation of motion of the shoulder or elbow.

CASE 3.—W. C., age 48; was sent to the hospital with a fracture through the lesser trochanter of the femur. A Lane's plate was applied one week after the injury because of the inability to keep the fragments in apposition. A plaster cast, including the knee and lower abdomen, was applied. The wound healed by first intention. On account of a peculiar nocturnal delirium, probably due to an old luetic infection, the cast was not opened as soon as we desired. After four weeks the cast was split and daily massage to the hip and slight passive motion to the knee were instituted. At eight weeks all dressings were removed and massage and passive motion applied to the joints. At the ninth

week the patient was up on crutches. At this time motion was practically normal in the hip. The knee could be fully extended and flexion was only slightly limited.

CASE 4.—Mrs. W., age 41; entered the out-patient department with a Colles' fracture of the left forearm. The fracture was reduced and supported by a splint. On the second day passive motion of the fingers was begun. On the sixth day the bandages were removed and massage was begun at the site of the fracture, the arm resting on the splint. This was repeated daily. At the second week a good callus was formed and careful passive motion was begun. After three weeks union was firm, supination and pronation normal, the wrist movements were but slightly limited, the fingers could be flexed and extended to the normal limit. There was no pain in the forearm and no excessive callus. The function was practically perfect by the fourth week.

We are convinced, from our experience, that much criticism in fracture work will be spared the profession if more personal attention is paid to the details of the after-treatment.

Humboldt Building and 3826 Castleman Ave.

THE ST. LOUIS MUNICIPAL TUBERCULOSIS CLINIC. A CLINICAL AND STATISTICAL REVIEW OF SIX YEARS' PROGRESS WITH OBSERVATIONS AND CONCLUSIONS *

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AND

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Physician in Charge Municipal Tuberculosis Clinic

ST. LOUIS

GENERAL SURVEY

The St. Louis Municipal Tuberculosis Clinic was established as a part of the general city dispensary system in July of the year 1906. Owing to the fact that the city of St. Louis up to that time had been without special clinical facilities for the diagnosis and treatment of this malady, the establishment of such a dispensary was deemed advisable. The idea of the originators of this movement was that the clinic should not only treat cases of tuberculosis, but also that it should be a center for the dissemination of knowledge concerning prevention and the proper care of those afflicted. In its activity, therefore, this clinic has not limited itself solely to tuberculosis, but includes in its scope the treatment of other affections of the lower respiratory tissues, such as bronchitis, bronchial asthma, pulmonary emphysema and pleurisy. The tendency, however, during the past two years has been to limit the work to the treatment of tuberculosis.

The clinic as a part of the municipal system of dispensaries is under the control of the hospital department. The chief dispensary physician is the nominal head of the clinic, but is not actively engaged in the work. An assistant physician is

in active charge five hours each week day, i. e., from 8 to 11 a. m., and from 4 to 6 p. m.; on Sundays from 9 to 11 a. m. The location, in the Old City Hall at Eleventh and Chestnut streets, is one of the best that could be obtained, for it is in the heart of the most congested portion of the city, and is admirably situated for the convenience of most of its patients.

The dispensary consists of one large, well-ventilated room, subdivided by means of a partition into a waiting, and examining-room. On the walls of the former hang numerous photographs and screens illustrating and describing methods of infection, contagion, prevention and treatment of pulmonary tuberculosis. In the examining-room are the facilities necessary for carrying on the work, such as a microscope and the proper laboratory materials for the examination of sputum, scales for weighing and measuring patients, instruments for taking blood-pressure, white enamel instrument cabinet, sterilizer, examining-table, desks and cabinets for history records, etc. Floors and walls are kept scrupulously clean and are devoid of all unnecessary furnishings. With three large windows facing the east, plenty of air and sunlight are secured. These quarters are fumigated weekly by the City Sanitary Department, and the floors are washed daily with a disinfectant solution. Signs on the walls admonish patients not to expectorate on the floors. In fact, every precaution is taken to insure as perfect sanitary surroundings as possible.

An important adjunct to the clinic is the attending nurse. She is in constant attendance during clinic hours, issues cards to patients, starts records and keeps them in order, oversees the conduct of the waiting-room, supplies patients with sputum boxes and disinfectants, assists the physician in his physical examination of female patients and in many other ways makes herself invaluable.

Patients are drawn principally from the poorer districts, most of which are in the central portion of the city. However, not a few come from outlying neighborhoods. Cases are usually referred to the clinic by the various branch dispensaries, visiting nurses, social service workers, physicians, friends and patients of the dispensary. Only residents of the city who are financially unable to seek the services of a private physician are granted the privileges of the clinic. Medicines are furnished without charge.

The majority of the patients are wage-earners. Possessing an average amount of intelligence, they are fully capable of observing instructions. This class gives us the least trouble. However, there is another type, the so-called tramp or itinerant laborer, who wanders from town to town and drifts from one lodging-house to another. He is less intelligent and less tractable, extremely difficult to handle and undoubtedly one of the chief sources of infection in every com-

* Read before the St. Louis Medical Society, Sept. 21, 1912.

munity. Another class is the very poor, who, through inability or the lack of employment, is always out of work. In these cases outside financial aid is required.

ATTENDANCE

Since the clinic's inception, 4,405 patients have applied for examination. In 2,033, or 46 per cent., of these cases, a clinical diagnosis of pulmonary tuberculosis was made. The total number of consultation visits of patients returning for further treatment or observation amounted to 14,078. Of the 2,033 cases of tuberculosis, tubercle bacilli were present in the sputum of 897. In 446 cases bacilli were not found, although the clinical symptoms indicated tuberculosis. This may be accounted for, to a certain extent, by the fact that in many instances there was but one sputum analysis and the patient did not return for further examination. The sputa of 684 cases were not examined. This was due either to inability to obtain a specimen or failure on the part of the patient to return to the clinic. However, the clinical history and physical findings conclusively demonstrated that these were true cases of tuberculosis.

there has been a steady increase in the total number of patients treated. The chronicity of tuberculosis renders this self-explanatory. As it is a matter of record that tuberculosis is on the decline in large communities, this fact may also have influenced the falling off in our quota of new cases.

TABLE 2.—PULMONARY TUBERCULOSIS: TOTAL NUMBER OF CASES REPORTED TO HEALTH DEPARTMENT

	Cases	Deaths
1906-1907	1,904	1,123
1907-1908	1,985	1,119
1908-1909	2,634	1,094
1909-1910	2,198	1,203
1910-1911	2,036	1,075
1911-1912	1,971	933

In fact, a glance at Table 2, which is a record of the number of reported cases and the number of reported deaths in the city of St. Louis during the past six years, shows that during the past two years there has been a decrease of both in spite of the fact that the city's population is constantly growing and that physicians are now more in the habit of reporting cases. This condition tallies with the decrease in the number of new cases in the clinic, and may in some way be related to the general decline of tuberculosis due

TABLE 1

	*1906-7	1907-08	1908-09	1909-10	1910-11	1911-12	Total
Number of new patients.....	325	654	959	932	761	783	4,405
Number returning for further treatment.....	442	1,118	2,930	3,174	3,336	3,078	14,078
Total number of consultations during year.....	767	1,772	3,889	4,097	4,097	3,861	18,483
Diagnosis of tuberculosis in new patients.....	148	349	388	410	357	381	2,033
Diagnosis of other conditions or normal.....	177	305	571	513	404	402	2,372
Number of cases in which tubercle bacilli were found.....	71	123	144	137	199	223	897
Tubercle bacilli not found.....	23	84	62	75	103	99	446
No sputum analysis or no sputum received.....	54	142	182	192	55	59	684

* The clinic was open but nine months during this year.

It will be observed in Table 1, that in the period between the years 1906 and 1909, there was an annual increase of 300 new patients. In the year 1909-1910, a slight decrease in the number of new applicants, as compared with the previous year, was noticed. In the subsequent year there was only a slight increase over the previous one. The increase in attendance during the first period of three years can be accounted for by the fact that the institution was new, the only one of its kind in a very large field, and was given widespread publicity. For a period of three months during 1910 and 1911 an attempt was made to change the afternoon clinic hours to evening hours. This had a most disastrous effect on the attendance. There was so marked a diminution in the number of patients who applied that this new plan was abandoned and the old system resumed. It is also worthy of mention, that the pronounced falling off of new patients during the past two years may be due to the fact that during the latter period the clinic received less publicity and advertising than in former times. In spite of the decrease in the number of new patients,

to the fight that is being made against it. However, we must remember that the deaths occurring in the Robert Koch Hospital are not registered in the city but in the county—a fact which accounts in a measure for the diminution in the deaths reported.

ETIOLOGIC FACTORS

Those who have studied the subject of tuberculosis must of necessity conclude that in the final analysis its cause is an economic one. Probably one of the greatest defects in civilization is the economic condition which makes it a necessity for people to crowd into cities and live in an unnatural manner, and is thus responsible for the innumerable lesser or secondary causes. But it is not within the scope of this paper to enter on a discussion of final causes or first principles. Suffice it to say that we have found certain social conditions, among the secondary causes, it is true, bearing an important relation to the prevalence of this disease. The great remedies are *social* and not *medical*.

Fully 20 per cent. of the cases of tuberculosis reported in the city are treated in this clinic. Patients financially well off do not seek it; so we have no record concerning them. However, it is recognized that tuberculosis is essentially a disease of the poor. Therefore our statistics must stand as having a definite relation to the general tuberculosis situation.

TABLE 3.—OCCUPATION OF TUBERCULOUS PATIENTS, 1906-1912

Laborers, unskilled—		Of this number 62
Indoors	91	were teamsters.
Outdoors	567	
Craftsmen, mechanics		
and skilled laborers—		
Indoors	58	
Outdoors	111	
Housework, domestics,		
etc.	293	
Factory hand	95	Of this number 57
		were shoe-workers.
Clerical worker	65	
Porter	50	
Laundress	31	
Waiter	31	
Cook	27	
Janitor	24	
School children	35	
Butcher	10	
Unclassified	545	
Total	2,033	

It is interesting to observe in Table 3 that among the unskilled laborers, 567 worked in the open and but ninety-one indoors, excepting porters, etc., who are classified separately. The question that will naturally arise is why, since these workers were employed in out-door occupations, so many were affected with tuberculosis. We shall answer this later.

laborers, such as railroad workers, wreckers, street cleaners and teamsters, are among the poorest paid wage-earners. Most of these are single and live in cheap lodging-houses, which are often hotbeds of tuberculosis. It is also true that the intelligence of these men is lower than the average. Then, too, many of them are addicted to the intemperate use of alcohol. The number of skilled workers is smaller. They earn larger wages and live better. More are married and enjoy the benefits of home life. They are also more intelligent and less addicted to the use of alcohol.

Of the factory hands, more than half were shoe-workers. Investigation of the cause for this would not be amiss. Consumption is common among store clerks. It is a notable fact that the ventilation of large department stores is very defective and they boast little or no sunlight. This will account for the comparatively large number of clerks affected. Thirty-one porters were afflicted. Daily contact with dust and sputum receptacles laden with tubercle bacilli accounts for most of these. Thirty-one waiters and waitresses and twenty-seven cooks are on the list. The majority of these were employed in cheap restaurants. This is deserving of notice because of the large number of patrons unnecessarily exposed to them and points to the great necessity of some stringent measure in the way of health-permits or health inspection to prevent infected individuals from pursuing occupations so detrimental and dangerous to the health of the com-

TABLES 4 AND 5.—SEX AND SOCIAL CONDITION OF TUBERCULOUS PATIENTS

	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	Total
Male	96	243	306	308	285	281	1,519
Female ...	52	106	82	102	72	100	514
Single	61	195	234	218	191	203	1,102
Married ..	73	120	127	131	119	144	714
Widowed .	14	34	27	61	47	34	217

TABLE 6.—AGES OF TUBERCULOUS PATIENTS

Age	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	Total
Infants	1	0	0	2	1	6	10
Up to 10 yrs.	1	10	3	9	10	18	51
10 to 20 yrs.	9	40	42	34	31	38	194
20 to 30 yrs.	44	85	121	133	113	126	618
30 to 40 yrs.	48	105	117	119	92	88	569
Over 40 yrs.	45	109	105	113	110	105	587

In Table 4, we find 1,519 patients were males and 514 females. In Table 5 it is shown that 1,102 patients were single and 714 married. Of these single patients the larger percentage were males. In noting the number of single individuals it may be observed that but a small number were below the marriageable age. It is to be concluded that all these factors are correlated and interdependent. The majority of unskilled day

laborers, such as railroad workers, wreckers, street cleaners and teamsters, are among the poorest paid wage-earners. Most of these are single and live in cheap lodging-houses, which are often hotbeds of tuberculosis. It is also true that the intelligence of these men is lower than the average. Then, too, many of them are addicted to the intemperate use of alcohol. The number of skilled workers is smaller. They earn larger wages and live better. More are married and enjoy the benefits of home life. They are also more intelligent and less addicted to the use of alcohol.

It will be observed that over 50 per cent. of our cases were between the ages of 20 and 40 years. This is the general rule. It is worthy of note, though, that it is the period of most active usefulness in the life of the individual. We have found a greater number of cases in patients over 40 years, and in those between 50 and 70 years, than has ordinarily been supposed. Our number of infants is small. This can be explained by the existence of the large number of special clinics for children and by the tuberculosis mortality in foundling asylums.

TABLE 7. NATIONALITY OF TUBERCULOUS PATIENTS

Irish	549	Italian	23
German	339	Greek	23
American	201	Polish	18
African	180	Scottish	15
English	145	Miscellaneous	434
French	35		
Hebrew	27	Total	2,033
Swede	24		

Our statistics show the largest number of cases of tuberculosis among those of Irish and German extraction. These attend clinics in greater numbers and constitute a major portion of the city's inhabitants. Those of African descent amounted to 9 per cent. Considering the number of negroes in the community this percentage is comparatively high. It should also be remembered that many are very neglectful of their health and do not seek medical attention, and that many have a peculiar fear of clinics and hospitals. But twenty-seven cases were of Hebrew extraction. Even though many patients seek clinics connected with their own organizations it is apparent that this proportion is relatively low.

Of 2,033 patients, 374, or over 18 per cent., indulged in alcoholic liquors to excess. This should strengthen the opinion that alcohol is a powerful predisposing agent. Though nearly all the male patients used tobacco in some form in moderation, this fact is of little or no importance. It is significant, however, that 300 patients, which is 14.75 per cent. of the total, or 20 per cent. of the males, smoked cigarettes to excess. Most of these patients were young men. In several instances some averaged from 100 to 150 cigarettes daily. In most instances these cigarette smokers were anemic, debilitated and ill-nourished.

It is well known that exposure to tuberculosis plays a more important rôle in etiology than it is ever possible to discover. The real figures if they were known, would be startling. In our own records, we find in 423 cases, or 25 per cent., a positive history of exposure to tuberculosis. In view of the fact that many patients are not aware of their exposure, and many are unable to give a reliable history, such numbers are remarkable.

TABLE 8

Environment	
Good	617
Bad	1,264
Unknown	112
Exposed to tuberculosis	423

TABLE 9

Without treatment ..	1,202
With treatment ..	609
Not known	122

We found that 1,264 patients lived in unfavorable surroundings. Accurate information in this connection was obtained from the reports of the visiting nurses, whose record card gives a full history of the case.

By unfavorable surroundings is meant ill-cared-for and crowded streets, insufficient air space and light; few windows; crowding in rooms; large numbers sleeping in small, ill-ventilated rooms and exposed to tuberculous individuals; no screening and lack of cleanliness. Of this number, a large proportion were inmates of cheap lodging-houses situated in the congested parts of the city. Surely these figures are additional proof that exposure, environment and family history are all important causes.

Our statistics show 1,202 patients had been without medical attention or advice up to the time they applied at the clinic. The vast majority of this number had by that time developed frank cases of tuberculosis. Most of this number were unskilled laborers, ignorant, often indigent

ST. LOUIS CITY DISPENSARY

NURSE'S CARD.		TUBERCULOSIS CLINIC.		HISTORY NO.	
Name		Address			
Character of House,	Stories	No. of Rooms	Condition of Rooms (Clean, Dirty)		
Floors (Clean, Dirty).	Light.	Ventilation	How long resident there		
No. in Family	Adults	Children	Boards		
Patient's Room (Separate)	Separate Bed		How many sleep in room		
Windows in Room	(Open, Closed).	Balcony	Yard	Sunlight	
Disposal of Sputum	Personal Cleanliness				
Observation of Instructions					
Circumstances	Food, Quantity		Quality		
Clothing (Clean, Dirty, Soiled with Sputum, Insufficient)	Bed Clothing (Soiled with Sputum)				
Name of Nurse	Date of Visit		Time Spent		
REMARKS OR SUGGESTIONS					

and frequently subjects of chronic alcoholism. Many were of the transient lodging-house type, the individual whom you can place at sight by naming two or three of the best-known of these abodes. These men are so unintelligent that they never realize the importance or gravity of an affliction until it is past remedy.

CASE HISTORIES

The history of every case is recorded in such a manner that a concise account of any case can be easily and quickly obtained. An endeavor is also made to include sufficient detail for future reference in the compilation of statistical data. Much matter is printed on the history card in order to save time, facilitate expression and unify the records.

This card probably differs but little from those used in other clinics. Experience has proved that it serves all practical purposes. The size of the card is 8 by 9 inches. On one side is recorded the history, general physical examination, laboratory findings and diagnosis. On the other side are two diagrams representing an anterior and posterior view of the chest, outlining the ribs and vertebrae and making it possible to graph-

File No.

HOSPITAL DEPARTMENT
CITY OF ST. LOUIS

DIVISION
DISPENSARY AND OUTPATIENT
SECTION TUBERCULOSIS CLINIC.

.....
Last Name. 19

Section No. Division No.
Name Address Age Occupation M. F. W. C. S. M. W.
Diagnosis Tentative Diagnosis

F. H.	F.
	M.
	S.
	B.
	W. H.
	A. U.

Contact When Where

PREVIOUS HISTORY

Measles, Pertussis, Malaria, Typhoid, Pneumonia, Pleurisy, Influenza, Bronchitis, Fistula, Other Diseases,
Rheumatism, Operations or injuries to chest.

Habits Alcohol Tobacco Ceased Work

Nationality How long in St. Louis Referred by

Precious treatment

P. I. Began with Supposed cause

Now complains of

Cough A. M., P. M., Sputum Character Amount

Dyspnoea, at night, lying down, on exertion. Loss weight No. lbs.

Strength Appetite Digestion Diarrhoea

Fever Chills Night-Sweats Sleep Haemoptysis

First Last Number Pain

Throat Symptoms Other Symptoms

P. E. General Appearance Chest Costal Angle Expansion

Muscle Atrophy Tongue Pupils Skin

Glands { Cervical Clavicles Scapulae Retraction

Axillary T. P. R. Fingers Mucous Membranes

Inguinal Time of Day Weight Height ft. in.

Heart: Sds. Apex Base Enlarged Vessels

Abdomen Menstruation

Sputum Examination Date 191 .. Died Examined by

Von Pirquet

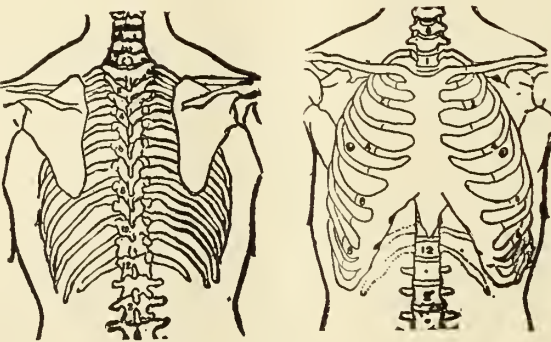
Date reported to Health Department 19

Date sent to Division, Hospital Department 19

Note: Copy of Dispensary history must be sent by clerk with patient when transferred to other divisions of Hospital Department.

Front of History Card

LUNGS



STAGE	{	Incipient
	{	Marked
	{	Advanced
	{	Acute Miliary
PROGNOSIS	{	Favorable
	{	Doubtful
	{	Unfavorable

Description of Lesion found

Back of History Card

ically localize lesions. Below this, space is left for a detailed description of the specific physical findings and for further notations on case.

A more detailed description of history-taking and examinations will not be amiss here. The history of possible exposure to tuberculosis the description of environment, occupation and habits are entered into with considerable care. In suspected cases the possibility of slight loss of weight, weakness, malaise, anorexia, sensations of heat in the evening, cough and history of hemoptysis are carefully inquired into. In many instances the first symptom attracting the attention of the patient to his condition, is the spitting up of blood. Each patient is questioned concerning night sweats, dyspnea, pain in chest, gastric symptoms and diarrhea. Often with the best efforts it is impossible to obtain a satisfactory history. Not infrequently a patient will volunteer the information that he or she has been sick and coughing a week or two, when as a matter of fact an examination will reveal an involvement, which must have shown symptoms for a period extending over months. It is likewise often difficult to obtain information concerning family history, exposure and previous disease. Many alcoholics persistently deny drinking to excess, although everything about them belies their denials. The visiting nurse discovers this delinquency in quite a number of cases in the course of her rounds.

PHYSICAL EXAMINATION

A complete and thorough physical examination is made in each case. The painstaking examination is the most important feature of diagnostic analysis. The entire chest is exposed; the nurse is always in attendance when female patients are examined. As a result, we have never had any difficulty in obtaining the patient's consent to a thorough examination. First, a general inspection of the patient is made. The general physical development, state of nourishment, attitude, color of skin and mucous membranes, state of fingers and finger-nails, are observed. Malformation and evidence of physical degeneracy are recorded. The condition of the pupils is noted. Recently an observer has pointed out that inequality of the pupils is an early and fairly constant sign in tuberculosis. This sign has been sought for by one of us, and though it has been observed, has not been characterized by its constancy. The patient's height and weight are recorded. Glandular enlargement is determined by palpation. Pulse and temperature are registered. The chest is carefully inspected; the character of costal angle, length, contour and symmetry of chest, abnormal depressions and bulgings and character of respiratory excursions are noted. Careful and painstaking tactile fremitus has been found valuable. We have tried the muscle tension sign, as described by Pottenger,

in some 400 cases, including the incipient stage, but have not found it of much diagnostic value. In each case the heart is outlined with care and cardiac defects ascertained. In percussing, we prefer a very light percussion stroke anteriorly and a quick forceful stroke posteriorly. Our main reliance is placed on auscultation, as this is the most sensitive method in the physical examination of the lungs. Usually early involvement is found in the infraclavicular regions or the suprascapular spaces. In incipient cases the principal diagnostic signs are fine changes, discernible by auscultation, consisting of roughened inspiration, prolonged expiration and localized exaggeration of vocal fremitus. Suggestive points in the clinical history are also given careful consideration.

Our experience in the clinic with tuberculin as a diagnostic agent has been limited almost entirely to children, and for this purpose we have followed the Von Pirquet method. Though impressed with the superiority of the subcutaneous injection, we have employed it only in a few instances, as the majority of our cases were workers and could not be properly controlled. Of 116 cases of suspected or latent tuberculosis in children the Von Pirquet cutaneous reaction was positive in seventy-three. Of the forty-three negative cases none showed any signs of the disease. Of the positive cases eighteen were suffering with acute and subacute bronchitis; fifteen had enlargement of the tonsils and adenoids; four, adenoids, alone; nine showed cervical adenitis; one had enlarged axillary glands. Only three showed definite tuberculous involvement of the lungs. It is probable that some of the adenitis cases were of a tuberculous nature and that others giving positive reaction may have suffered involvement of the peribronchial glands without definite clinical symptoms.

Referring back to Table 1, it will be seen that tubercle bacilli were found present in the sputum in 897 of a total of 2,033 cases. In our routine examination of patients, sputum analysis is made in every case, when possible. Much dependence, however, should not be placed upon the sputum examination alone, for many a diagnosis is made in the face of continued negative sputum analyses. Greater importance is given the physical examination and the clinical history. In many instances our patients were transients and seen but once. In these, the diagnosis was made without the aid of a sputum analysis. Many were sent to the hospital after the first visit. There is no doubt that if the sputum had been obtained in every case, the number of positive findings would have been much greater.

CLINICAL VARIETIES OF TUBERCULOSIS

In pulmonary tuberculosis observers have noted that there are certain cites of selection for morbid processes, which are revealed in the physical

examination. In 286 incipient cases involvement of the right apex occurred 219 times and of the left sixty-seven. This ratio of over 3 to 1 is rather striking. In 927 cases, in the second stage, 691 showed involvement in one lung, on the right side. Both lungs were affected in the remaining 236 cases making a ratio of about 1.5 to 1. Hence it is readily seen the longer the disease progresses the greater is the tendency for involvement of the opposite side. Fifty-eight patients suffered with tuberculous laryngitis. As nearly as it was possible to determine, all were secondary to pulmonary involvement. Other varieties of tuberculosis also came under observation. Some cases of miliary tuberculosis, tuberculous pneumonia and pleurisy, spondylitis, osteitis and fistula in ano presented themselves sporadically. Some of these cases were referred to various special clinics.

TREATMENT

Prophylaxis: It is needless to say that the effectiveness of a tuberculosis dispensary depends on the number and character of preventive measures at its command. Harsh as it may sound, it is nevertheless true, that if our efforts are to be successful they must be directed not so much toward those already afflicted as toward the untold numbers, who will sooner or later contract the disease if not properly protected. In this connection aside from educational and general prophylactic measures, it is worth while mentioning here that every effort should be made to isolate the advanced cases. There is no doubt that the advanced case is the nidus for the infection of large numbers of individuals. For this reason we send as many of these cases as possible to the hospital, and strongly object to their remaining at home in spite of the feelings of the patient or of the family. Unfortunately, many become dissatisfied with hospital life and leave only too soon to infect possibly dozens of others. Knowing these conditions we choose this time to plea for larger and more satisfactory facilities for patients with advanced tuberculosis. It is incumbent on municipal authorities, regardless of expense, to make life in the hospital as pleasant and attractive as possible for these patients, so they will not be so eager to sally forth, and unwittingly endanger the rest of the community. Though prophylaxis is our most dependable measure we are not negligent of the fact that much good is being accomplished by the proper treatment of early cases.

Aside from the diagnosis, which is made in the clinic, by far the most important work is being carried on by the visiting nurses and the social service workers. St. Louis does not employ nurses for this purpose, but the clinic works in close cooperation with the St. Louis Society for the Relief and Prevention of Tuberculosis. This society supplies us with competent nurses and

aids our patients in many ways. It is only through the persistent efforts of these visiting nurses that the patient learns how to care for himself and protect those about him. It will be readily seen by what follows, that much valuable service is rendered and that a tuberculosis clinic without a visiting nurse system and social service department could never accomplish much good. Unless the important facts of prevention are frequently and eloquently put before him, a patient will soon become lax and negligent in his hygiene. The nurse in the course of her visits to the homes necessarily comes in touch with other members of the family of the afflicted one; as a result, many unsuspected incipient cases are discovered through her knowledge of early symptoms, and eventually these cases come under the influence of the clinic. When a patient fails to attend the clinic as instructed, the nurse visits him and determines the causes. If he should have no carfare, he is supplied with it. When the patient is indigent and will not go to a hospital or sanatorium, the society supplies him with such necessities as milk, eggs, meat, ice, coal, clothing, etc. If a patient is found bedridden the nurse looks to his comfort or arranges for his admission to the hospital. Some in the East are opposed to supplying the advanced cases with these necessities of life on the theory that if they are withheld, more of them will be forced into the hospitals and in this manner they will be prevented from being agents for further infection. As we have shown before we are keenly aware of the advantage of isolating cases in hospitals, but we are opposed to this radical plan for two reasons: First, Hospitals are always wanting in capacity and that individual attention, which even the poorest may obtain at home. Second, No one should be the arbiter of another human being's life. If he desires to remain home, he should not be forced into an institution by denying him necessities in his last days. We believe that those experimenting with this drastic plan will find themselves defeated for the simple, untrained minds of neighbors and friends will see the fundamental error of this method, and come to the assistance of their neighbor in possibly a less scientific but a more humane way.

HYGIENIC AND DIETETIC TREATMENT

As most of our cases come from congested districts, home treatment without changing the residence of the patient is almost out of the question for hopeful cases. A prime object is to send as many patients to sanatoriums and rural districts as is possible. Many incipient cases, which are amenable to persuasion, are sent to the State Tuberculosis Sanatorium at Mt. Vernon, Mo. During the past four years, ninety patients have been transferred to this institution. Some of the Jewish patients have gone to one of the two Jewish hospitals for consumptives in

Denver, Colo. Some are sent to friends or relatives in the country and are instructed to place themselves under the care of a physician or to report in person or by writing at frequent intervals. We are opposed to the common practice of instructing a patient sent to Colorado, Arizona or some other locality to "rough it." Tuberculosis is too serious a disease to be dealt with by make-shift, ill-regulated living. For this reason it is deemed most inadvisable to send a poor person away from home unless he is directed to some institution or to relatives. Some of our patients who live in the outskirts of the city, or who have suitable yards have been supplied with tents; they are provided with properly outlined charts, on which a daily record is kept. The food is regulated in quantity and quality, and an endeavor is made to have the routine treatment at home conform as much as possible to that which obtains in a well-regulated sanatorium. Others have been provided with window tents, which have been exceedingly satisfactory. One patient with incipient tuberculosis has used a window tent for four years, and is now apparently free from the disease. The visiting nurse and the doctor keep tent cases under close supervision, because it is felt that most can be accomplished with patients who realize the gravity of their situation sufficiently to inconvenience themselves in this manner. Intelligent patients are furnished with fever thermometers, are taught to take their temperatures and keep daily records. In this manner, they learn to take more than a morbid interest in their condition and become much more careful in their hygiene.

Many of our children are sent to the Open-Air School, another philanthropy of the St. Louis Society for the Relief and Prevention of Tuberculosis. These schools are indispensable in all large communities. Only children with incipient or latent tuberculosis, those physically predisposed and those who have been much exposed are accepted. This school is conducted along the most approved plans. All of our children have improved here; all have gained weight, some as much as 10 to 15 pounds in less than a year. Several have been discharged, to all appearance cured.

THE CLASS IN TUBERCULOSIS

As we have mentioned again and again, experience in practice has proved that unless consumptives are placed under strict surveillance, they sooner or later become lax in observing their physician's instructions; thus making the proper management of their cases more difficult and lessening their chances for recovery. In order, therefore, to overcome this condition, we have adopted the method of class instruction, which has proved successful in eastern cities. A number of favorable cases, usually ten or twenty are selected, preferably those whose intelligence and home environment is fairly good. A certain after-

noon or evening each week is set aside for the meeting. When the entire class has arrived, the attending nurse takes the temperature of each and records the pulse and weight. The home record of each patient for the past week is examined and comments are made. For this purpose a small note-book is supplied each member of the class. In these they record daily their temperature, pulse, unusual symptoms, exercise, rest and quantity and quality of food. At every conference, the physician also notes in each book the patient's state of health, whether improved or otherwise. In this way a very successful record of the patient's condition from week to week is available and in those instances in which the patient is under tuberculin therapy, it serves as a guide for future treatment. The class is productive of increased interest among its members. They become more attentive, more careful and more hopeful. They are more apt to observe any change or symptom which perhaps otherwise would be overlooked. Sometimes a patient is complimented on the thoroughness with which his record is kept or is felicitated on improvements noted in his condition. This little praise serves to encourage all the members. During the class sessions, questions are asked and answered, instructions and information are given in reference to diet, hygiene and other matters. This plan was first put into effect in November, 1911. The results thus far have been most gratifying. The members are mostly patients in the second or beginning third stage of the disease. We usually induce incipient cases to enter the state sanatorium and we endeavor to keep the advanced cases in isolation, either at home or in a hospital.

TUBERCULIN THERAPY

During the past three years thirty-three of our patients have had tuberculin treatment. The results in the main have corroborated the opinions of those conservatively in favor of this remedy. Of these cases, five were early, twenty-eight were marked cases. It was impossible to continue the treatment consistently in every case for patients free to come and go are at best difficult to control. However, we have found that one of the surest ways is to place them under tuberculin treatment and to form classes such as we have mentioned above. All of these cases with the exception of three cases of tuberculous adenitis and one of pulmonary tuberculosis showed bacilli in the sputum. Two cases, women, one fairly early and the other a marked case but showing no bacilli, apparently have made complete recoveries. The first, at the end of two years has had no recurrence. One case of suppurating inguinal adenitis and tuberculous orchitis recovered completely, all induration disappearing. A number of other early cases did remarkably well under tuberculin, gaining in weight and improving in every way, but unfor-

unately the treatment in but few was carried out for more than six or seven months. In all of these hygienic and dietetic treatment was the same as in those without tuberculin treatment. In the pronounced and advanced cases, tuberculin therapy was employed solely in an experimental way to determine if it possessed any efficacy in alleviating symptoms. We have not considered fever a contra-indication to the use of tuberculin. In a number of the cases, the fever was mitigated by the use of this agent. In a few the cough and night sweats were helped when other remedies had failed. Some gained in weight and in a fair number the loss of weight was arrested. In the early cases, the results were astonishing, considering that the patients did not have the advantages of sanatorium attention. In the later stages, it was helpful in some cases, but seemed to have no influence whatever in quite a few. In general the results were promising and not only warrant further trial of this remedy but should stimulate its use in sanatorium practice. Though not yet a specific in the physician's hands, it is a valuable adjunct that will bear closer study and more consideration than it may have received in the past. It might not be amiss here to mention that not only general reactions were often noted in most of the cases in which tuberculin was used, but that local and focal reactions occurred with reasonable frequency. Koch's old tuberculin and bacillin emulsion were the two varieties employed. Our most extensive experience was with the old tuberculin, and it appears that our best results were obtained with this preparation.

MEDICAL TREATMENT

Here as well as elsewhere, medical therapy has played but a minor rôle in the successful treatment of this malady. We have found no drug of any value in controlling infection with the tubercle bacilli. Creosote is employed frequently, but not for any antiseptic effect it may have on the tuberculous process *per se*. We have found it of some value as a tonic in impaired stomach function, and for the effect it may have in bronchitis and bronchorrhea.

The administration of drugs resolves itself into the treatment of symptoms and complications.

Fever: In cases where there is fever, instructions are given for the patient to remain as quiet as possible. Usually there is an afternoon elevation of temperature. An hour or two rest in bed or on a couch gives the best results. The nurses see that directions are followed. When fever is severe, the diet is restricted to liquids and semi-solids. If elimination is defective, mild cathartics are employed. Hydrotherapy is sometimes instituted under the nurse's supervision. Mild antipyretics such as aspirin, antipyrin and quinin, are not infrequently employed and fairly good results noted in persistent high temperature.

Cough: Certain preventive measures are necessary. Excessive exertion, emotion or talking should be avoided. Occupations in which irritating substances, such as chemicals, dust, dry air, etc., are encountered, are conducive to coughing. In order to treat this symptom intelligently, the cause must be determined if possible. Sometimes it is due to laryngeal and pharyngeal irritation, or affection of the larger bronchi. Under such circumstances, smoking and the ingestion of irritating substances should be interdicted. Inhalations of steam containing phenol and compound tincture of benzoin are sometimes very helpful. A spray containing menthol and phenol may be used. For the harassing night cough and paroxysmal attacks in advanced cases the alkaloids, heroin and codein have been our mainstay. These are incorporated in a cough mixture containing either syrup of tolu or wild cherry. Creosote is also often used in combination with the foregoing.

Expectoration: When cough is dry and expelling of sputum is difficult, inhalations sometimes help. The salts of ammonia, such as the chloride and carbonate are valuable. The syrup of ipecac in small doses is efficacious. Our main reliance, however, is placed on the iodide of potassium, usually in a vehicle such as simple syrup or syrup of tolu.

Hemoptysis: Here absolute rest is the greatest essential. In severe hemorrhages, the patient is kept in bed and morphia given hypodermatically. The cough must be allayed. An ice-bag is placed over the heart. Contrary to general opinion, we have found ergot of practical value in most cases. A drachm of the fluid extract is given and repeated every three or four hours. When the blood-pressure is high, vasodilators, such as the nitrites, are employed. In milder cases, ergot is also indicated. Cough sedatives like codeine and heroin are sometimes helpful. When the coagulability of the blood appears defective, we have used the chloride and the lactate of calcium with doubtful results. We have had no experience with attempted fixation of the chest or compression over the supposed site of hemorrhage.

Night Sweats: Our most effective remedy has been dilute aromatic sulphuric acid in 10- to 15-minim doses three to four times daily. In only a few cases has it failed to give quick results. When this has been found wanting in severe cases, we have used the sulphate of atropine by mouth in 1/150 to 1/100 gr. doses every four hours. Occasionally when constipation is present, a high enema will give relief.

Pain: Pain in the side is a frequent accompaniment of harassing coughs. It is often due to a complicating tuberculous pleurisy. For this cough, sedatives are employed: strapping the affected side with strips of adhesive plaster will

sometimes give relief, and occasionally local counterirritants have proved efficacious.

Anemia and General Weakness: In addition to the general hygienic measures mentioned above, and the special attention to diet and ingestion of fats, we have at times, found it necessary to employ some of the so-called tonics and hematinics, strychnia, iron and occasionally arsenic have been the drugs of choice.

In summarizing, we wish to emphasize the following facts:

1. One tuberculosis dispensary in a large city is not sufficient. No dispensary can perform adequate service unless it has one or more visiting nurses, supplies medicines without charge, and is in cooperation with a social service organization.

2. Tuberculosis clinics must receive carefully planned publicity.

3. The fact that one clinic alone cares for 20 per cent. of the reported cases shows what an important relation such institutions bear to the tuberculosis situation.

4. Transient, unskilled laborers are great disseminators of tuberculosis.

5. Cheap lodging-houses are hot-beds of tuberculosis and should be kept under strict surveillance.

6. All factories should receive careful inspection; light, air-space and ventilation regulations should be established and enforced.

7. All those employed in cooking and serving food in public places should receive medical inspection.

8. Excessive use of alcohol and tobacco are important predisposing agents.

9. Home life is antagonistic in some degree to the dissemination of tuberculosis.

10. The great practical importance of educational measures is evidenced by the overwhelming fact that over half of our cases had never received medical attention nor advice before applying to the clinic.

11. We have found none of the newer methods of diagnosis as reliable as the old.

12. Tuberculin skin tests in children are valuable aids in diagnosis.

13. *The ultimate cure of tuberculosis is economic.*

14. Rational preventive therapy must be based upon educational and economic lines. We must treat those who have not contracted the disease.

15. Hospitals for advanced cases should be of large capacity and as attractive as possible.

16. There should be more free sanatoria subsidized by the state. Each state should have at least three or four such institutions.

17. The visiting nurse is indispensable in the treatment of city cases. Philanthropic organizations are also necessary under present conditions.

18. Though it is of utmost importance that advanced cases should be isolated in hospitals, it

is not proper to force them into institutions through premeditated neglect.

19. When patients are sent away from home without the assurance of further assistance, the results are usually disastrous.

20. The class in tuberculosis is an ingenious and valuable idea, which is giving practical results.

21. Tuberculin therapy is a valuable adjunct in the treatment of tuberculosis both in city and sanatorium practice, because not infrequently truly remarkable results are noted.

22. Medical treatment is necessary in dispensary practice. Pronounced cases require symptomatic treatment. Most patients cannot be controlled without some form of medication.

We are indebted to Drs. L. M. Warfield and M. C. Tuholske for the use of the records compiled during their service in the clinic.

1019 North Fourteenth Street.

INDUSTRIAL TRAINING FOR CRIPPLES IN RUSSIA

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The care of cripples in Russia has received but scant attention and throughout the empire there are but few agencies devoted to the improvement of their condition. In St. Petersburg there is one institution, however, which has carried the industrial training of cripples to a point which renders it almost unique. It prepares even the most seriously handicapped cripples for a useful occupation, and from this viewpoint its work cannot fail to be of interest to those identified with similar efforts in other parts of the world.

The need of the crippled and deformed for some kind of systematic training was strongly impressed on Prof. N. A. Welliaminoff, surgeon to the Czar, and head of the great Maxmilian Hospital at St. Petersburg. In casting about for some trade in which instruction might be given, the manufacture of orthopedic apparatus appeared to offer exceptional promise. This also was recommended by a double advantage; while some cripples were being benefited by the training for an occupation, other cripples were provided at the same time through the lowered cost and improved quality of the appliances required by their deformity. The approval of the Directors of the Maxmilian Hospital was secured and an orthopedic workshop for trade training of cripples was opened Oct. 14, 1897, under the patronage of Princess Eugenie. The shop is affiliated with the orthopedic department of the Maxmilian Hospital.

From the start the physicians identified with the hospital took a great interest in the project and up to the present time have provided for its

support by obtaining contributions from the nobility. During the first year the workshop was quartered in a suite of three rooms in the hospital building. At the present time it occupies fourteen rooms on one of the lower floors of the same building. At first there were but two pupils, and during the first few years instruction during the day only was provided without resident accommodation. Preference regarding admission was given to young cripples. A teacher who had been trained in the school for cripples at Helsingfors, Finland, was secured, and as branch subjects she gave instruction in cabinet making, spinning, weaving and brush making. The work on orthopedic apparatus was supervised by the physician in charge of the workshop. At first the production of appliances was very naturally limited to simple apparatus, but during the course of the first two years thirty-eight patients of the hospital received their orthopedic braces free. It was difficult, however, to meet the requirements in the matter of special shoes and complicated metal appliances, and as a result in 1899, a special shoe-making department was installed and placed in charge of a specialist. In 1900, the necessary lathes and machine tools were acquired, a forge was erected and a machinist and apparatus maker were employed.

But up to this point it had been impossible to provide for the very seriously maimed cripples, as, for instance, the one-armed and the armless, the teachers in the workshop not being acquainted with the methods of instruction for persons so deformed. There was no suitable teacher in Russia, and the institution at Copenhagen, Denmark, had but three available teachers, none of whom they could spare. The oldest pupil at the St. Petersburg workshop, P. N. Alexandrow, was therefore sent to the Copenhagen school to learn the methods there in vogue. Completing his course in 1903, he returned to his own institution and was appointed teacher in the workshop, remaining there up to the present time. This brought about a considerable improvement, but there was still need for the use of apparatus in certain processes which would lessen the labor involved. In order to make the mechanical part of the work as perfect as possible, there was therefore added to the staff of the workshop a key-maker, W. G. Sorokoumow, who was himself a cripple.

In 1904, the war in which Russia was engaged with Japan caused an augmented demand for orthopedic appliances, and the workshop was considerably enlarged.

It was found that transportation to and from the workshop each day was a serious problem for some of the cripples, and there was therefore founded in 1901 the "Association for the Care of Cripples Learning a Trade." The object of this organization was to provide a resident home in conjunction with the workshop, and to provide

the additional care necessary to train the cripples for careers as industrious workers and useful members of the community.

Cripples between the ages of 14 and 30 are received for instruction at the workshop. The term of instruction for those with reasonable capacity for work averages about four years. At the expiration of this time if the cripple is in a position to do independent work, even though this work might necessarily be extremely simple, three alternatives are considered: Either he remains in the workshop and receives wages, or remains in the workshop and is partly paid for his labor, or he receives a recommendation and is employed in a private shop.

Some of the cripples are, of course, so severely handicapped that they can be assigned no fixed period of training. Such pupils receive a certain amount for their work, even during the course of their instruction. Those who work hard and make satisfactory progress receive every month between two and five rubles¹ for clothing. The object of these payments is to accustom them to rely for support on the money which they themselves earn and not to get them in the habit of depending exclusively on charity.

The more able workers go into the orthopedic department of the hospital. After four years of training they receive wages of between twelve and fifteen rubles a month. Such pupils not only clothe themselves at their own expense, but also pay three rubles a month for their room in the home, or else rent quarters near the workshop.

During the first ten years of its existence the workshop received 116 men and 11 women. Of these there have been discharged 74 men and 3 women. All further analysis will be made on the basis of this first ten year period.

The cripples admitted are divided into three classes according to the degree of loss of working powers. To the first class belong those afflicted with serious loss, such as amputation of both arms, or the complete crippling of them; or amputation or crippling of one arm, especially the right, and particularly in the case of such sufferers as have no personal talent for handicraft; or the loss of several fingers. Among the pupils in the workshop, twenty have been in this class.

In the second class are cripples with injuries to the body or the limbs, those suffering from some progressive disease; and those who have recovered from a serious wound. In such cases outside assistance and the general conditions of work are of the greatest importance. Excessive exertion would be injurious and tend to aggravate their crippled condition. There have been thirty-four of this class in the workshop.

To the third class belong cripples with amputated lower limbs and deformity of the limbs,

1. A ruble is equivalent to approximately 50 cents.

whether congenital, rachitic or due to other causes. The ability of cripples of this class to work is limited by the difficulty of their power of locomotion, and is thus largely dependent on the usefulness of artificial limbs and the correct choice of occupation. There have been twenty-five of this class in the workshop.

The following table gives a survey of the occupations taught the cripple, together with a statement of the number trained in each trade.

Trade	Workers trained
Orthopedic apparatus.....	16
Key-making	33
Ordinary shoemaking.....	38
Cabinet-making	12
Turning	3
Brush-making	2
Basket-making	4
Weaving and sewing.....	4
Saddlery	3
Tailoring	12

The following statement will show the results of the training of those that have been discharged:

Twelve engage independently in the occupation taught them in the workshop. One woman teaches manual training, one works in the shop of an orthopedic institute, six work in private shops, four in their own villages, five are employed in various non-mechanical occupations, one is a porter, one is an accountant, two are domestic servants, one is a hostler, three have learned specialties not taught in the workshop and are now working independently for themselves (two girls as ironers and one in dental work), thirteen men have disappeared, three were taken home by their relatives, and seven refused to work.

There are at present in the workshop three teachers at a salary of 30 to 75 rubles a month. Four instructors work part time earning from 10 to 25 rubles a month; seven are assistants of the masters; one woman assists the inspectress, and one man acts as secretary earning from 10 to 20 rubles a month. There are twelve older pupils and ten younger ones and two are in service in a private house.

Quite a number of the pupils have been disabled soldiers. Excluding these there were sixty-six men who had completed the course of instruction. Of these, twenty have gone outside and become good workmen, and twenty-eight are employed in the workshop. This shows 72 per cent. of the cripples as able to work after proper training. The outside workers, or 30 per cent. of the total, labor satisfactorily under normal conditions of industry. Those within the workshop, or 42 per cent. of the total, work under preferentially favorable conditions. Among these latter are the cripples of the first and second classes to which reference has already been made, whose ability to work is largely dependent on their environment.

In the St. Petersburg shop the workers are protected from over-exertion. They work seven and one-half hours a day and have an intermission of three hours at noon. During the summer the pupils have the regular workman's vacation and the "Association for the Care of Cripples Learning a Trade" provides a stay in the country.

During the period we are analyzing, the workshop produced 7,785 pieces of orthopedic apparatus, in addition to 1,976 non-orthopedic articles. Of the orthopedic appliances, 804 were given to various philanthropic agencies at a third or a half of their value. Assistance was thus rendered to 611 cripples. The expenses for a recent year were, in round figures, 95,000 rubles, while the income of the workshop was 92,000 rubles, not including rent, light or heat. It will thus be seen that the cost was very low, especially in view of the fact that industrial training for graduated pupils is included in the account.

The experience of this Russian institution has been duplicated in several other places. The great institution for cripples at Copenhagen found that while some of its graduates might be successful in commercial competition with normal workers, many by reason of serious handicap required special conditions of work. Perhaps the need was for apparatus adapted to their deficiency, perhaps for adjustable chairs or stools, perhaps for a rest period in the middle of the day. It has been found in England, Belgium and France as well as in Denmark and Russia that the prime purpose can be best attained by a special workshop inaugurated by philanthropic initiative and subsidy, but maintained on a thoroughly self-supporting or profitable basis.

There is need at the present time for more workshops of this character. Their value is unquestioned from both the humanitarian and economic standpoints. They make helpless cripples into self-respecting members of the community and burdens on society into productive workers.

298 Metropolitan Tower.

WHY PHYSICIANS SHOULD ACTIVELY FIGHT THE OPTOMETRY BILL *

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ST. LOUIS

For several years the representative men in ophthalmology have been endeavoring to educate the profession and our legislators against an attempt at that kind of medical legislation which would recognize as part of the medical profession the business of selling glasses, and would admit commercialism to the dignity of professional standing. The Ophthalmic Section of the St.

* Read before the Rolla District Medical Society, Dec. 5, 1912.

Louis Medical Society has considered the plan of sufficient gravity to warrant sending a committee to the last three sessions of the state legislature in order to oppose the persistence of the traveling optician in his endeavor to obtain a misleading title. Each year a new legislative committee must be educated by medical men and the same ground fought over until one would suppose that the traveling spectacle salesman would become weary of attempting to enter medicine by the short cut of legal enactment instead of by the more difficult paths which the rest of us must follow. This year, by a few slight changes in the sound of their sentences rather than by any real change in their obvious plans, they have succeeded in procuring a certain number of reputable names in medicine with which to conjure, and the question naturally arises whether the commercial idea of doing business shall be permitted to usurp the place of the professional ideal in medical practice in Missouri.

There is a vast difference between the commercial *idea* of doing business and the professional *ideal* in practicing medicine; no one would criticize commercialism in its place. There is only one impulse more praiseworthy in the minds of the majority of men than honest business (or giving a customer his money's worth), and that is the professional ideal of doing the very best possible for the patient regardless of cost to the physician, and then, and then alone, thinking of doing justice to the physician. The question, then, for the physician is, What course should be pursued which is best for the patient? It is admittedly not the best thing for the patient when the surgeon bribes himself to prescribe surgical appliances by receiving commissions from the surgical supply company, or the oculist bribes himself to give glasses by receiving commissions from the optician. It is not the best treatment for the patient when the optician, either with or without urging by the patient, changes the patient's glasses from the original prescription of the medical man. The law has said that a prescribing druggist commits an offense against society by endangering the individual—either his life or his usefulness. So ophthalmologists say that the prescribing optician, whether licensed by law or unlicensed, who gives glasses for an unrecognized corneal ulcer, as was done by a prominent firm in this city, continues to change the glasses of a patient with glaucoma because the patient continued to notice failing vision, as was done by another prominent firm, or who prescribes vaginal douches of salt water for those headaches which his glasses do not relieve, is committing an offense against society. Yet the "fitters" of these firms do as good "testing" as the average optometrist.

If it is wrong for the druggist to prescribe medicine, we do not rectify the wrong by giving

him a license to do so. The advocates of this bill say: "Oh, but we will fix it so that only well-qualified druggists will be permitted to do business in this way." Does that make it any safer for the sick man? A druggist's business is to fill prescriptions, and he cannot know enough of medicine to write them, or he would not continue in the lesser calling. Does it make him any more competent to recognize him by legislation? His license permits him to fill prescriptions and not to prescribe. So I would not oppose a law requiring an optician to have a license to fill prescriptions, fit frames and test lenses—not test eyes—if the optician persists in demanding some kind of recognition as an "optometrist" (which I believe he will abandon as soon as he finds that he is not permitted to pretend to practice medicine).

The would-be "optometrist" holds that the same arguments applied to the original licensing of physicians and subsequent medical legislation, as would now apply to their request that the state raise their business to the dignity of a profession. The history of such movements often gives some light on the motives of the originators and advocates. The men who have been most in favor of stringent medical legislation have been those not only most advanced in learning, stable in method and modest in deportment, but also most remarkable in their altruism; there can be no doubt, however, that we may be accused of being unaltruistic in our treatment of the poor, in our readiness to be inconvenienced and in making personal sacrifices to prevent suffering, the spirit of medical legislation has always been unselfish. These men would devote a large portion of their time (which could have been valuable to them commercially) toward preventing quacks from entering medicine. The advertiser was excluded because the people were misled by his claims to cure. It is noteworthy that the legislative committees were not obstinately importuned by quacks to report favorably medical bills against quacks.

In the present instance we have lined up for the bill, in addition to respectable representatives of their class, men who claim through the daily papers "that depression, nervousness, headache, indigestion," is caused by a need of glasses; and "let our Dr. Blank test your eyes." Also men who have been traveling opticians, and men who have thus been enabled to establish in the city an "optical institute" sometimes in combination with a "neurological institute" (honest business men, perhaps—men who have sold an eighth spherical lens for the relief of what) asking for a law to shut out the quacks from their "profession." In addition, they begin at the wrong end. Their immodesty enables them to make advances to members of the medical profession before they have proved themselves honest in motive, practically saying, "Forget our past

shortcomings, however recent. We wish you to work with us for a law to prevent anyone else committing the sins of which we were and still are guilty. Our motives must be pure. We admit it to you. Just sign your name there, please. Thank you." If they could only say: "Look at our past record of services rendered the individual and the state and decide for yourself whether I would propose a law not beneficent," we might feel that commercialism and business were not their prime motive. The bill, therefore, does not seem to have been drawn by the right people nor with altruistic motives (to give the very best possible medical service to sick eyes or individuals without regard to a possible commercial good or harm to the "profession"), but rather it has been advanced for the purpose of safeguarding the interests of a questionable business. I would not contend that the business of selling glasses is a wicked one, but I insist that when spectacle sellers and fitters attempt to speak authoritatively about the condition of their customer's eyes as if they were skilled in medicine (irrespective of whether they claim to be "doctors"), then their business becomes nefarious because it is fakery where vital interests are concerned. The fakery of a business man about a plaything is trivial even if it is dishonest, and we do not care to prosecute on account of a toy which is not as represented; fakery about real property, where dishonesty causes a real deprivation or despoiling of one party is punishable by law. But it seems that there are certain physicians and one or two oculists who are willing to allow certain business men to sell legally something which they have not, namely, the judgment to determine whether or not eyes are sick; and if so, whether glasses are the correct treatment and whether they need anything else. When a "patient" pays for his glasses, he also pays for the opinion of the fitter.

I wonder what would be the attitude of the physicians and oculists who are aiding these men if their families were placed in the position in which they are placing the public at large when they encourage the "optometrist." I can imagine the wife writing to her medical husband: "Jane has not been well for a month and she is having bad headaches. I took her to our optometrist who says she needs glasses. She seems to see better since she began to wear them." Would this educated father with visions of brain or kidney lesion forcing themselves on him, answer his wife thus: "Rely on your spectacle fitter. If he says that our child's symptoms are caused by the need of glasses, be reassured, because he is an honest business man who would send her at once to a physician when he found that she has Bright's disease, and there will be plenty of time for the physician after that." Yet this is what he is advocating for the fellow who is "not so fortunate as to be able to reach an

oculist." The only reason that there are not sufficient medical eye-men over the country is that the "free-examiner," the constantly advising-to-wear-glasses optician, has made it hardly worth the medical man's time to acquire the proper training in ophthalmology, and the medical man, especially in the smaller towns, is largely to blame. In former years the traveling optician began his game first on the doctors. When he arrived in town he would visit the physicians and fit as many as would allow him with presbyopic glasses. The doctor would then send a certain number of "patients," and by that time the spectacle seller would be established. We of the profession are "easy marks" in our simple-hearted generosity. We seem to be willing to do almost anything wrong if some self-interested person requests it. From what I know of the small-town (medical) oculist, there is no reason why every county seat should not have its medical specialist in eye-work. It is notable that they are succeeding financially and giving true medical service out of the best of training, and I dare say that in those towns so fortunate as to have a good oculist the business of the jeweler and optician spectacle seller has diminished. Stop these latter and thereby encourage young graduates to go into country eye-work.

In the days when any one was allowed to practice medicine if any one would consult him, no doubt much was uttered against interfering with his "liberty" when laws were proposed to limit practice to the competent.¹ It was stated in those days that there were many communities where the only doctors obtainable were ignorant of medicine; that it was a pity to deprive the poor farmer of quacks and herb doctors because the good ones would never go around; that it was better for a perhaps-less-intelligent-than-the-patient "doctor" to go to the drug store and buy drugs for the patient than for the druggist to sell medicine direct to the patient; it was more authoritative treatment for the patient and more lucrative for the self-styled doctor. But the laws were passed, and when too many still crowded into medicine, it was discovered that half as many well-prepared men could be of more benefit to the community, and also that the stricter the laws the less commercial would applicants prove. Culture and commercialism do not seem to be congenial companions. If competent optometrists meant only competent eye-men or oculists, there could be no doubt as to the beneficent effect of an optometry law. In that case the

1. The opticians argue that this bill would also limit to the competent, but the truth is that it is only legitimizing the incompetent because the optician who can fit glasses properly is wholly as incompetent in medicine and the relation between the eye and disease as the optician who cannot fit glasses properly; then why have a law when it would have no efficacy exactly along those lines which they claim for it, i. e., protection from disaster through the competent?

above situations in medical progress would be applicable in the development of the work of the opticians.

There have been for years spectacle sellers, just as there have been drug sellers; the street vendors and the jewelers allowed people to select what they believed was best for them without the interposition of any authoritative advice. "Seeing better" was their only guide. Then came the "free-testers," who used the test range for distance, again allowing what the patient said he saw to determine his glasses. It was at this point that some began to use the title "doctor" and to advise the patient as if clothed with authority. This proved so successful financially that the country was soon filled with jeweler-doctors, many of whom had "studied" all of six weeks in order to obtain the certificate, exhibited conspicuously in their places of business (now termed by some an "office"), which announced to the world that they were six weeks' more skillful than their rivals. This proved so lucrative that the "profession" then became too crowded and it began to look as if the "patients" would not go around. Many patients come to oculists, not only from the country, but also from the same type of optician in the city, with either plain "window-glass," or the weakest correction possible, which no self-respecting medical man would have prescribed in those given cases, because the patient's symptoms were obviously caused by disease, either general or ocular. It certainly must be difficult to deal honestly with every customer or patient when a man's only source of income is the sale of glasses. Even if he intends to be honest, he cannot render an unbiased opinion. These people, therefore, are petitioning for a license to render an opinion, while advertising that the opinion is paid for by the sale of glasses. They need no license to sell glasses. It is no uncommon occurrence in city and country to have a "free-tester" charge more for the glasses alone than the patient would have paid the medical man for several visits and a legitimate optician for his glasses. But one of their arguments is, "Why pay for a consultation when you can have your eyes tested free?"

There is one argument used concerning the use of medical titles by opticians which is misleading: "Nothing in this act shall be construed to give any person licensed under the provisions of this act the right to attach to his name as a prefix or suffix the title doctor, etc." While, in addition, there is nothing in this act to *prevent* the use of such titles, the bait has been thrown to physicians and snapped up by some that the "Missouri Association of Optometrists, which has a number of 'doctors' on its roster, has placed itself on record as 'unequivocally opposed to the use of professional titles by its members.'" I do not believe that the use of the word "doctor" deceives the public half as much as the pretense of knowledge which they claim by other means. What difference does it make to the layman whether his optom-

etrict uses "doctor" or not? "Eye-tester" gives him about the same if not greater sense of security. If a druggist advertised "medicines prescribed free," the inference is that he claims ability in prescribing, and the man ignorant enough to consult him would not care whether he used a title or not. His mental attitude becomes really a reassurance from being told that this man can prescribe medicine safely. He says so; therefore he does. But the law simply says that he shall not prescribe nor use "M.D."

Another argument advanced is that many opticians do better spectacle fitting than many medical men. So, too, do many trained nurses pass a catheter more skillfully than the patient's physician. Does that mean that the nurse should be licensed to pass catheters on whomsoever will permit it, simply because the "passer" judges that this treatment is what the patient needs? *"Catheters passed free." You pay for the instrument, not the passing.*

They practically say to us: "But we wish to allow only those who can pass an examination in 'anatomy and physiology of the eye' and 'optics' to prescribe glasses." The situation is analogous to what would have happened if the early apothecaries had been licensed to practice medicine, provided they could pass an examination in mineralogy, chemistry, botany and materia medica. Then, if they learned in addition the "anatomy and physiology" of the stomach, they might have received a license to be "stomach specialists" without having studied general or even gastric diseases.

One gentleman, who has loaned a distinguish name to the support of this bill, says: "It is the actual, not the ideal, condition that confronts us. Many people have in the past, and will in the future, secure their glasses from opticians without examination by an oculist. It follows (?), therefore, that any measure which aims to raise the standard of spectacle fitting among opticians—just this and nothing more—is worthy of the support of public-spirited citizens, whether physicians or laymen . . ." I should like to ask how would a similar argument have lasted when house-cleaning time came to the medical profession? There is not a single evil the advocates of which do not use the argument, "It is not an ideal condition, but a fact. It could be worse; therefore let us not eliminate the evil, but compromise." *No compromise concerning the public good can ever be made by the medical profession as long as it retains professional ideals and as long as it does not become tainted with the spirit of business.* The gentleman quoted above stands among his confrères practically alone in his method for obtaining the advantage of the public, and the profession at large should not receive the idea that by their silence they agree with him.

It seems to me that the solution of the whole question rests in the blocking of all legislation permitting the practice of any branch of medi-

cine without a thorough medical education, eliminating the counter prescribing of any means of cure (not simply drugs), and thus creating a demand for adequate teaching of "optometry" by our universities only in connection with a general medical course. The trouble has been that the profession at large has been indifferent to the subject, and has permitted a group of jewelers and opticians to establish a specialty of medicine outside of medicine. Not wishing to practice spectacle fitting themselves, they have, by their encouragement of opticians, rendered it difficult to persuade the younger medical man to go into eye-work. Chiropractic has been declared illegal by our supreme court; but I hope that with the growing persistence of the opticians and the growing weariness of the ophthalmologists, the general profession will not finally allow this business to be admitted to the dignity of the profession.

Finally, the legal opinion given by the consulting lawyer, Mr. Lehman, has absolutely no bearing on the morals or good policy of the bill. He was evidently consulted about the constitutionality of the bill alone. "There are no limitations on the police power." What is for the public good is always declared constitutional. Mr. Lehman has not said in his opinion that this bill is or is not for the public good—only that it is not unconstitutional—whether for the public good or not, and that it deals liberally with those opticians already in the business. Even though not for the public good, the bill would not be necessarily unconstitutional, so therefore the legal opinion has nothing to do with any benefits or harm to be derived from it.

As to the kind of optician who will be permitted to "hold examinations," the bill is amusingly explicit. It is rather generally admitted that the wholesale houses who do retail work are the most reliable class of opticians. They are *not* allowed to be members of the examining board. I do not know whether the "teachers" in the optical "colleges" are more or less reputable as opticians than the travelers, but they, too, are barred. There are now left as eligibles the traveling fitter, the jeweler and the "doctor" in the department store. I should be glad to mention another class if I could think of him.

Concerning the latter two paragraphs: If those opticians who are clamoring for legislation of recognition as "optometrists" are in earnest about "the good of the public," they should be willing to submit to far more stringent laws than are advocated by this bill. If they are doing the public harm by being liberal with those already selling glasses without a license, they would surely be willing to pass an appropriate examination by suitable men selected by the State Board of Health. If that would be for the public good, it would rank as a police law which would not be declared unconstitutional. Let medical men (who understand the relationships of optics and

the relation of anatomy and physiology of the eye to disease) be appointed to decide whether the knowledge of a spectacle-fitter is sufficient to insure safety to patients. Some years ago the midwives were very solicitous for a law which would protect the public. It was granted them and the public was protected by an examination given by the Board of Health which has discomfited a number of would-be midwives. If they had been allowed to regulate their own practice, the country would have been flooded with dangerous specialists recruited from the ignorant. That result is to be feared if the "practice of optometry" is turned over to the class of opticians remaining by exclusion after the manufacturers and wholesale dealers and stockholders and teachers in optical colleges are barred.

An optometry law would be a good thing if applied by the right people, and it is the duty of the medical profession to see that such a law is passed that spectacle-fitting is once and for all made safe for the public by regulation through those most competent and unbiased.

THE HEART MUSCLE *

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The human body is composed of a variety of tissues combined so as to form the various organs of the body. These organs are grouped according to function into systems, as follows: First, the osseous system or skeleton whose function is to give protection, support and contour to the body—its frame-work, and in her wonderful economy Nature uses this frame-work as a laboratory for the production of blood-cells, especially red blood-cells. Second, the muscular system, whose function is to execute the various activities of the body. Third, the digestive system, the central organ of which is the stomach, whose function is the digestion and preparation of nourishment for the body. Fourth, the respiratory system, the principal organ of which is the lungs, whose function is the taking into the body of oxygen and the carrying away of carbon dioxide. Fifth, the nervous system, the central organ of which is the brain, whose office is to give functional activity to every organ and tissue of the body. And last, but of most vital importance, is the circulatory system, the principal organ of which is the heart, whose function is to carry oxygen and nutriment to every other system, organ and tissue of the body. The heart, the central organ of this system, has but one function, and that to feed the entire body by pumping blood and oxygen through the arteries and capillaries to all its parts. This is done by con-

* Read in the Medical Section of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

traction of the heart muscle. This contraction causes the heart beat.

When the heart ceases to beat, in a moment the body becomes a mass of inert matter and begins to hasten back to the dust from whence it came. More people are dying to-day, both absolutely and relatively, from heart disease, than ever before in the history of the race. We of to-day are living under too high pressure, we are led by a false light, the *ignis fatuus* of an ambition to excel our neighbor in the frenzied rush for fortune, fame and social and political distinction. This has led us into such strenuous living that the heart refuses to bear the strain—it gives out—heart failure.

The heart first appears at about the fifteenth day of embryonic life, as the primitive tube, and begins to contract soon after this, though it pumps no blood. I will here briefly review the anatomy and physiology of the heart in order to a better understanding of its pathology; the heart is a muscular organ having four cavities, two auricles and two ventricles, and is divided by a longitudinal muscular septum into two lateral halves, right and left heart; the right heart is the venous side, the left the arterial side and is called the working side of the heart. Each side is divided into two cavities, the upper the auricles, the lower the ventricles.

The ventricles throw the blood through the lungs—the pulmonary circulation—and through the general system—the systemic circulation; the auricles receive the blood after it has passed through the two circuits or systems and empties it into the ventricles. The work done by the heart is surprising, considering its size and blood-supply. It is about the size of a man's clenched fist and weighs ten to twelve ounces in the adult male, and is about 1/169 weight of the body. An amount of blood equal to about one-ninth the weight of the body, or in round numbers about 17 pounds, passes through the heart in one minute; and every tissue and organ of the body depends for its very life and function on the heart's work, for it pumps nutriment to all of them including itself.

Since the birth of physiology the heart has been a problem to the physiologist, first as to the cause of its sounds, which we now know—the second sound being due to the closure of the aortic valves, and the first has two elements, a valvular and a muscular element. And second, the cause of the heart beat which is still under discussion by physiologists; the older theory, and one still maintained by some investigators and known as the neurogenic theory, teaches that the heart is controlled in all its functions by three sets of nerves; first, inhibitory nerves, from the cerebrospinal system, a branch of the pneumogastric—the check nerve of the heart; and second, the accelerator nerves, from the sympathetic system, the cardiac plexus, whose function is to quicken the heart's action; and third, intrinsic

nerves within the heart muscles, whose function is to originate the heart-beat and to regulate its rhythm.

The second theory, and the one held at the present time by most physiologists and known as the myogenic theory, maintains that the heart is automatic—that is, that the cause of the heart beat originates within the heart muscle itself; that the heart muscle fibers secrete a substance which stimulates the heart and causes it to beat. The presence in the blood of the salts of potassium, sodium and calcium, seem to have something to do with the heart beat. Whether these salts have to do directly with the origin of the heart beat, or merely give the heart muscle fibers irritability, is not known; my belief is that it is the latter, for I believe in the vitalistic doctrine—or dualism—as applied to life.

So much for the anatomy and physiology of the heart; now as to its pathology. This is summed up in one phrase: heart failure—the important question being as to how this comes about: death from heart disease is due to exhaustion of the reserve force of the heart muscle. By regarding the heart as a muscular organ, with but one function to perform, and that function to pump blood carrying oxygen and nutriment to every tissue and organ of the body, much of the mist that has clouded heart pathology will clear away if we take this view of the subject. In other words, it is on the heart beat that every phase of life depends.

Whatever weakens or causes the heart beat to cease compromises or puts an end to the life process. Heart failure may be rapid and followed by sudden death, or it may be gradual, and followed by such symptoms as dropsical effusion, congestion and enlargement of the liver and spleen, scanty and inefficient urine, shortness of breath, cardiac asthma, edema of the lungs, and dizziness due to anemia of the brain. Failure of the heart muscle may be due either to overwork or insufficient nutrition. Overwork and the consequent exhaustion may result from the heart's working against valvular defects—regurgitation or insufficiency, or stenosis or obstruction—a high blood-pressure, or to a profound toxemia incident to the infectious maladies: typhoid, diphtheria and sometimes pneumonia. Or the failure may be due to lack of nutrition of the heart muscle, from arteriosclerosis of the coronary arteries—or cardiosclerosis as some term it—whereby many of the capillaries of these vessels become obliterated, and in so much the heart muscle is deprived of sufficient nutriment—the result is with the heart muscle, as with any other muscle of the body deprived of the requisite nutriment—failure.

Heretofore too much attention has been paid to valvular defects as a cause of heart failure to the exclusion of the condition of the heart muscle resulting from disease of the coronary arteries, and the various toxemias. For after all it is a

myocardial trouble that kills—it is the end-result of valvular defects—it is the myocardium or heart muscle that fails. Heretofore the diagnosis and prognosis in heart disease have rested almost wholly on the presence or absence and character of heart murmurs, failing to give the proper significance to the patient's sensations, for we now know that many cases of serious organic heart trouble exist with but slight or no audible murmur; by organic heart trouble I mean both valvular and myocardial defects.

It is true that most valvular troubles have their characteristic murmurs, and these murmurs are of interest only as pointing the way to heart failure; valvular troubles never cause death so long as the heart muscle remains intact and is able to do its work. We speak of lost compensation in valvular troubles. This means that the heart muscle is failing to do the extra work thrown on it by a leaking or obstructed valve—regurgitation or obstruction. Life and death hover about the heart beat, and life seems to make its last stand around the auriculoventricular bundle, the bundle of His, for here the impulse starts and here it must end; death can never overtake us so long as the heart beats and the lungs take in oxygen.

Lost compensation is but another term for a dilated heart following a compensatory hypertrophy due to valvular lesion or strenuous physical exertion. Dilatation, unless acute, is an end- or terminal-result of hypertrophy due to failing heart muscle. The sequence is as follows: Endocarditis, valvular lesion, regurgitation or obstruction, compensatory hypertrophy, dilatation, heart failure and death.

It is not the design of this paper to deal with the symptomatology, differential diagnosis and prognosis of the individual heart lesions, but to call attention to the fact that whatever the character of the heart lesion, the final result depends on the heart muscle; as long as it retains its integrity, its tonicity, sufficient vital force to do its work, life continues. Failure of the heart muscle is the tendency of all serious heart lesions, and the profound toxemias and the infectious diseases.

These lesions bring about failure of the heart muscle in various ways: valvular lesions bring it about by throwing extra and exhausting work on the heart in its efforts to overcome the results of obstruction or regurgitation—dilatation, exhaustion and failure follow overwork. The toxemias induce heart failure by directly poisoning the heart muscle or causing fatty or fibrous degeneration of this structure. High temperature may bring it on by causing too rapid action of the heart thus exhausting its reserve force. The circulation and respiration are the two agencies on which the life processes depend in the animal.

Death, however brought about, is always the result of failure of one or both of these functions. We know of vital force in mammalian life only

through the heart beat and respiration; we know a man lives by his breathing and his heart's beating; we know of his death by a cessation of these two processes. Some diseases are remarkable on account of their tendency to produce death from heart failure; pneumonia is a conspicuous example of such disease, for in the very large majority of deaths from pneumonia heart failure is the cause, either from too rapid heart action, resulting in exhaustion of the heart muscle, or from a profound toxemia spending its force on this muscle—a hint: in pneumonia, watch the heart, treat the heart; the lung will clear up if the heart is kept going. Circulatory failure, heart failure, should be the inscription on the tomb of perhaps forty-nine cases out of every fifty deaths from pneumonia.

This is a digression from the subject of my paper, for I am writing about the heart muscle; but from the fact that, notwithstanding the advance medical science has made in lowering the death-rate in most diseases, to-day the death-rate in pneumonia is as high as it was 30 or 40 years ago; more people are dying of pneumonia to-day than ever before, from this fact it is hard for me to pass by without giving pneumonia a dig when opportunity affords.

While heart failure is due directly to exhaustion of the heart muscle, resulting from valvular or myocardial lesions, there are a number of contributory causes: general arteriosclerosis, by diminishing and destroying the elasticity of the arteries, raises the blood-pressure and consequently increases the resistance to the heart's work, this resulting in overwork and exhaustion and failure of the heart muscle.

Chronic interstitial nephritis induces heart failure through the increased blood-pressure due to the arteriosclerosis which it often causes, and the irritant action of the retained poisonous waste product of protein metabolism due to the nephritis, causing a contraction of the vessels and poisoning of the heart muscle. Again, heart strain, which often results from too violent or too prolonged muscular exertion, always means dilatation of the heart with its consequent exhaustion of the heart muscle, is also a contributing cause of heart failure. Sometimes acute dilatation is rapidly fatal; when not so, it can generally be relieved by rest and heart tonics.

Irregular action of the heart, as seen in the nodal rhythm and also in heart-block, contributes to heart failure by causing the heart to work out of rhythm with the key to which it is set. In the normal heart, the sequence of its contraction is from auricle to ventricle with an interval of about one-tenth of a second, the auricular contraction, normally starting at the mouth vena cava, is propagated along the auriculoventricular bundle or bundle of His—a structure connecting the auricles and ventricles—to the ventricles. In nodal rhythm the wave of contraction starts lower down in the auricular ven-

tricular bundle, which results in simultaneous contraction of auricle and ventricle, or the ventricular contraction may precede the auricular contraction. In heart-block the auricles and ventricles contract independently; while the auricles may contract at the rate of eighty-five or ninety per minute, the ventricles may be contracting at the rate of forty or fifty per minute.

In both these conditions there is a lesion of the auricular ventricular bundle. The abnormal action exhausts the heart muscle by throwing it on a strain and so induces heart failure—again the heart muscle. Angina pectoris, whatever its cause and manifestations—whether due to aneurysm of the heart or lesion of the coronary arteries, valvular defects or dilatation of the heart, is always an expression of exhaustion of the heart muscle—the left ventricle. Again, the nervous mechanism of the heart may contribute to heart failure by inhibiting or accelerating its action, or interfering with its normal rhythm, thus exhausting the reserve force of the heart muscle.

As to the prognosis in heart troubles, this depends on the heart's response to the ordinary activities and avocations of life. Sometimes the exhaustion of the heart muscle is so extreme that walking across the room is impossible, owing to the intense breathlessness it induces; perhaps the most extreme cases of breathlessness in heart disease is found in aortic regurgitation with dilatation.

Sometimes it is wonderful, indeed almost miraculous, how the heart will regain its lost rhythm and normal beat, as in heart-block and the nodal rhythm and other forms of extreme irregularity, the result of chronic interstitial nephritis due to dilatation and poisoning of the heart muscle and its nervous mechanism by the retained protein metabolic products, resulting from crippled kidney function.

In conclusion, I will say that heart failure, and death as a result, is always due to exhaustion of the reserve force of the heart muscle.

As to the treatment of heart troubles: keep the system in the best possible condition; remember that there is a bond of sympathy between every organ and tissue of the body; when one organ of the body becomes disordered through some pathologic process, every other organ of the body responds in sympathy, and in so doing makes a draft on its reserve force, and in so much cripples its function. Watch the digestive function, carefully regulate the diet, caution the patient to avoid, if possible, overwork and worry and all forms of excitement, insist on plenty of rest and sleep; especially is the latter of vital importance in dilatation, either acute or chronic, and so-called heart-strain; rest in these cases often does wonders. Watch the heart in all cases of chronic interstitial nephritis; in fact, the heart symptoms are often that which lead to the discovery of the kidney trouble. As to drugs:

strychnin, strophanthus, digitalis, caffeine, nitroglycerin, adrenalin and spartein are to be used with a knowledge of their physiologic and therapeutic effects.

A CASE OF DOUBLE CHANCERE AND GONORRHEA WITH CONFRONTATION *

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C. P., 29 years old, unmarried, harness-maker. Family and previous medical history, of course, bear no relation to his present diseases. During the early part of January, 1912, he noticed that a "hair cut" on his penis failed to heal. It was situated on the under surface of the shaft, mid-way between the frenum and scrotum, and gradually enlarged until it became a flat plaque, circular in shape, and about 1 inch in diameter. Two days after the appearance of ulceration in the "hair cut," a "blind pimple," which soon ulcerated, developed on the mucous layer of the prepuce, just behind its attachment to the sulcus, and a little to the left of the median dorsal line.

The patient presented himself for examination Jan. 20, 1912. The lesion on the inner layer of the foreskin was a characteristic hard chancre. The large plaque on the under-surface of the penile shaft was but very slightly indurated. Both ulcers had healthy-looking raw surfaces, exuding a slight serous discharge, and their edges were not undermined. Dark-field examination of slides from each lesion showed numerous, active moving spirochetes. This patient also had a urethral discharge containing typical intracellular diplococci.

When questioned as to the time that had elapsed between the appearance of the chancres and preceding sexual exposures, the patient's answers were at first vague and evasive. Finally he reluctantly acknowledged that he had a "steady girl," with whom he slept every night. The patient was asked to bring his partner for examination, and strange to say, the girl consented.

Her history is as follows: C. S., 31 years old, unmarried, examination made Jan. 24, 1912. Has been very wayward in her habits since early girlhood and was deflorated before menstruation began. Became pregnant early part of November, 1910, while she was an inmate of a brothel in Kansas City, Mo. Latter part of March, 1911, developed what she termed "a chancre." This lesion was situated on the inner surface of the left labium majus, just above the fourchette. No cutaneous lesions made their appearance, but during the early part of June, 1911, patient's throat and mouth became so sore she could scarcely take liquid nourishment. At this time she was in a hospital awaiting her confinement. June 24, 1911, spontaneous premature labor, resulting in birth of dead child. Patient did not see child herself, but physician said "It had an eruption all over its neck."

The chancre, at the time of its appearance, was cankerized by the brothel's house physician. Its scar can be still seen just to the left of the posterior vulvar commissure. A few post-cervical glands are slightly enlarged; epitrochlear and inguinal glands characteristically syphilitic, although the latter could have been enlarged from the coincident gonorrhea. Patient's skin looks normal, but a few mucous patches are to be seen in the mouth. Smears from these lesions revealed the presence of spirochetes. Wassermann and Noguchi tests both positive. Gram negative, intracellular diplococci were found in smears made from urethra and cervix uteri. The disappearance of the above lesions, in both cases, as the result of administering 606 intravenously, and salicylate of mercury intramuscularly, corroborated the above findings.

* Read at the Annual Meeting of the Missouri State Medical Association, Sedalia, May 21-23, 1912.

This case is reported because of the interest which attaches to the tracing of a venereal infection to its source. In my experience confrontation is hard to establish; either the patient has been so promiscuous that he may not be able even to recall when or with whom he indulged, or the lady he accuses becomes indignant and flatly refuses to subject herself to examination. The girl in the case reported herein is now seven months pregnant.

King Hill Building.

THE RELATIVE POSITION OF MEDICINE AS A THERAPEUTIC AGENT *

O. B. HALL, M.D.

WARRENSBURG, MO.

I am fully aware that any deviation from the usual way of estimating the relative position of medicine in the practice of the healing sciences is not conducive to flattering popularity, and my only hope in presenting this paper to such a body of scholarly men, who have been schooled and trained in perhaps the most learned profession of all time, is to unite and cement into an unconquerable body the various elements which enter into therapeutics.

Already drugs have been properly shelved for more efficient treatment of certain diseases and pathological changes which we now regard as surgical. No intelligent physician attempts to effect a cure by the use of medicine ailments which experience has positively proven to be purely surgical.

The word physician to-day conveys little more intelligence to the minds of scientific men, than that of "doctor," which may mean almost anything. When hearing either word pronounced we instinctively inquire the *specialty*.

The efforts of men through the agency of time, have changed the old order of things and a cosmopolitan aggregation of special sciences has been inaugurated.

The practical therapist has discovered that for the best possible results no one system of treatment is applicable in every case of abnormality.

The complexity and intricacy of cell life necessitates myriads of changes and activities which are often perverted by wrong living and bad mental and moral habits, which result in physical, psychological and ethical depravity, necessitating some practical means of restoration.

For a long time the administration of drugs was surrounded by a halo of mysticism which bordered on charlatanry of the worst type. Empiricism ruled the practice of medicine. The light of science gently cast its illuminating rays on it until rational medicine forced its way into therapeutics. And now at last I believe we are beginning to realize the true significance of drugs in the practice of the healing sciences.

It is not easy to change the customs and habits of even learned men of the professions, to adopt new ideas and establish new principles on which to complete a life work; but faulty premises are gradually being rejected for more perfect ones, and conclusions are being reached which seem to be more in harmony with Nature and her teaching, which is true science. The practice of medicine, which I would classify as a specialty to-day, has until quite recently been considered all comprehensive, and it was no uncommon understanding of the dispenser of drugs to believe that when medicine failed Gabriel had already blown his horn and the last trump was about to be sounded.

The last decade has probably converted many of us to believe in much which we did not learn in college. As a convert to some new, yet old, practices in therapeutics I wish to point out as best I can from my own interpretation, the weak and strong points in the present known methods of treating the sick, and if possible find the real place which each may occupy as a therapeutic agent.

This paper is in no way meant to be a criticism of present practices, but rather an endeavor to harmonize and adjust the healing sciences to the good of the fraternity and our fellow-men.

Very few physicians limit their practice to strictly drug administration. The successful practitioner in general practice soon learns his limitations and resources in the use of drugs.

I would not, however, intentionally cast any shadow on the use of medicine in the treatment of disease, for I deem drug administration the most useful of any known method of therapeutics. A physician who does not have faith in medicines does not know them, and the sooner he severs his connection with the profession the better. It is often discouraging, and indeed, I might use a more pronounced and specific term to express my sentiments, when I learn how little confidence some of our good brothers have in the old stand-bys of long ago—drugs that have not disappointed in times of need—drugs that have given relief and assisted in the banishment of pain and disease.

It is not conducive to the best interests of the profession or laity, to allow the use of medicines to be neglected or their rightful place in therapy usurped by less efficient means. In truth, I am quite optimistic concerning the outlook; even though perhaps the use of drugs in the treatment of disease has decreased during the last decade. I am hopeful that in the probability instead of losing confidence in the administration of drugs, the profession as a unit has more accurately determined the true capacity in which medicines should be utilized as curative and palliative measures.

As medicines have thus been receiving their proper credits in therapeutics, other methods of treatment have naturally entered the arena of

* Read in the Medical Section, Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, Sedalia, May 21-23, 1912.

practice. Those which are more prominently viewed by the public to-day, and given by them various degrees of prominence are electro-therapeutics, hydro-therapy, massage, mechanical vibration, surgery, osteopathy and suggestive therapeutics.

Electricity and water are so commonly used by general practitioners and taught in every school of medicine, that little need be said, more than to call attention to the fact that these two agents are sadly neglected, and urge their employment where drugs are not indicated. The same may be said of mechanical vibration. I think, although personally I am not sufficiently familiar with the results to judge accurately of its efficiency.

If I have properly estimated surgery as a curative agent in disease, it has been overestimated by the profession. Many mistakes have been made and the great tidal wave of sentiment which has swept the civilized world in favor of surgical measures, is now returning, with much of the fadism and snap judgment eliminated, bearing the precious truth, and placing surgery on a more limited but firmer basis.

Osteopathy as practiced to-day is largely a fad, and I believe I might with equal zest add, a fraud. Notwithstanding the efforts of some osteopaths to deceive the people either through ignorance or maliciousness, there are still some elements of truth on which it is founded. The principle of massage on which osteopathy depends for much of its success, is a well-known practice and should be utilized more by the general practitioner. The abnormal contraction of muscles, misplaced nerves, chronic hyperplasia, hypertrophic conditions, local anemias and congestion may be relieved by manipulative treatment. Acute pain, from its many causes, is lessened if not cured by this means.

The practice of osteopathy has come to stay regardless of what we may think of it. The school of osteopathy will probably soon be at an end, but the treatment is a beneficial one in many cases, and because of its efficiency will remain with us as an adjunct to modern medicine. The osteopath to be successful must be educated in pathology as well as anatomy and physiology and must limit his practice to the conditions which are rationally known to be benefited by the method.

The practice of osteopathy will be guided in the future by experience, just as the practice of medicine and surgery has been directed.

Perhaps of all known means to assist Nature in her efforts toward restoration, the science of suggestion has been most abused and utilized by the charlatans for commercial aggrandizement, excepting drugs as used by the patent medicine manufacturers and venders. Suggestion is psychological therapy and as such found its way into the occult sciences during the early history of man, and has come down to us in fragments

bearing various names of fake religions and pseudo-sciences. The best known example before us to-day is Christian Science, which perhaps is the greatest barrier to real progress before the American people.

Based on certain philosophical truths, it is easy to assume a religious dignity sufficient to attract those of our race whose minds have not settled the question of man's relation to God and to physical existence.

The injury which has been done to health and life by the practice of this faith does credit only to a less civilized nation than our own. It is to be hoped that the truths underlying the practice will soon be brought to public notice, and this evil forever eliminated from the fields of therapeutics.

Hypnotism, which is only suggestion in the extremity of application, is a much abused function of the mind, which might be made of great service as a therapeutic agent.

In summing up these statements, I would urge that all known therapeutic agents which possess merit be carefully viewed by medical men, laying aside prejudice as one of the greatest evils of any nation or people, and utilize any and all principles of practice which in any degree restore the various organs and attributes of man to normal activity.

It is my contention that all lines of therapy and treatment should be thoroughly and scientifically taught in all schools of regular medicine. As scientific men we should not leave well-known sciences from our curriculum, to be misconstrued and twisted into almost unrecognizable form by pretenders and false teachers.

The influence of these various pseudo-scientific schools on the general public and legislative bodies, is sufficient to retard the development and progress of both curative and preventive medicine.

Opposition tends only to stimulate growth and create prejudice. By rendering such practices common, stripped of quackery and mysticism, by regular practitioners of medicine, the life blood of such charlatans would be speedily drained.

In conclusion, let me reiterate that medicine, electricity, water, massage, vibration, surgery, osteopathy and suggestion, each has a special field of usefulness in therapeutics and should be practiced by regular physicians, or specialists after graduating from regular schools of medicine.

Each practice should be dignified in proportion to its usefulness in the treatment and prevention of disease.

Medicine should assume but its full limit of good, classed as a specialty on an equal footing with other methods of treatment. Thus I would install medicine into a position relative to other well-known therapeutic agents.

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OF THE

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DECEMBER, 1912

EDITORIALS

THE BLUFF THAT DID NOT WORK

There are two principal reasons why in the past medical journals have been loath to publish unfavorable reports on proprietary medicines. In the first place there has been the unwillingness to lose an advertising contract, present or future. In the second place there has been a desire on the part of editors to avoid the unpleasantness which any criticism of a proprietary product is sure to bring about. While the first consideration has been the most potent factor, at least in the case of the journals that are run wholly for "the money there is in it," the second reason has not been insignificant. For know you, the promoter of a deceptive proprietary medicine is ever ready to take action against any editor who dares to impugn the virtue of his remedy—usually by demanding retraction (which means a free advertisement in a journal's reading pages), on pain of a suit for damages if refused. As the denial of one's convictions, demanded by this kind of proprietary promoter, is not pleasant to contemplate, and as a suit at law is likely to consume both much time and money, no matter how just the defendant's cause, editors of medical journals have usually hesitated to assume the aggressive. Instead, it has been so much more comfortable to say only nice things of these preparations.

But happily, the sway of the proprietary interests over the medical journals, if not nearing an end, is at least being restricted. Editors, other than those who conduct their journals for financial gain only, are beginning to appreciate that a medical publication which does not expose and condemn the fraudulent practices of proprietary houses at times is not being conducted in the interests of the readers; and also that threats of damage suits are much in the nature of a dog's bark—the more disreputable and cowardly the beast the more vicious his bark.

It is now more than seven years since the American Medical Association started its great campaign for honest medicines by publishing the composition of such acetanilid mixtures as Ammonol, Antikamnia, Phenalgin and Salacetin. In all that time during which dishonest or worthless proprietaries, no matter how high the reputation of the manufacturer, have been exposed, the Association has not had to justify in court a single one of its exposures.

A recent issue of *The Journal A. M. A.* (Oct. 26, 1912, p. 1550) shows the methods which proprietary concerns adopt to suppress unfavorable criticism and also the effect, or lack of it, which these efforts have on our national association's journal. *The Journal A. M. A.* showed that after the Antikamnia Chemical Company had substituted acetphenetidin for acetanilid in the Antikamnia sold in this country, the product sold in England still contained acetanilid. Following this exposure—probably because a change of the English Antikamnia had been decided on—the Antikamnia people wrote to *The Journal* asserting that the Antikamnia sold in England was identical with that sold in this country and threatened a libel suit for any statement to the contrary. While the Antikamnia people may have decided to change their English Antikamnia they were not quick enough for *The Journal A. M. A.*, for a specimen of Antikamnia, purchased subsequent to the receipt of the threat, was still found to contain acetanilid when examined in the Association's chemical laboratory. As the result, instead of making a retraction or refraining from further criticism regarding Antikamnia, *The Journal A. M. A.* editorially exposes the Antikamnia Chemical Company, and incidentally arraigns Antikamnia and those who use it as follows: "The company's protest to the contrary notwithstanding, the formula of some Antikamnia, at least, is still different in Great Britain from that sold in the United States. . . . A careful study of the Antikamnia advertisements in English medical journals shows that the British medical profession has been given no more consideration by this concern than was the American medical profession when the change in composition was made on this side. But then why should it be? Physicians, British or American, who are addicted to the prescribing of secret proprietaries such as Antikamnia have little need of formulas—"Their's not to reason why!" The medical profession on both sides of the Atlantic has never known the exact composition of Antikamnia and does not know it now. Physicians who call for preparations of the Antikamnia type are prescribing names, not drugs."

PAY YOUR 1913 DUES PROMPTLY

County society secretaries are now sending statements to their members for 1913 dues. We urge members to pay their dues promptly so that their standing in the Association shall be established right from the beginning of the year. Good standing in the Association means so much to every member that the payment of dues should not be lightly passed over and neglected to a convenient time later in the year.

Send your check to your county society secretary at once so that he can send your state assessment to the state secretary immediately after the first of the year.

OPPOSITION TO HEALTH LAWS

When the health department of any American city makes an effort to enforce sanitary ordinances or to secure additional legislation for safeguarding the welfare of the people, there is one condition it may always count on, and that is—opposition. In this respect, at least, the city of St. Louis may lay claim to preeminence.

So energetic is the antagonism which greets practically every movement to promote good sanitary conditions in the city of St. Louis that an uninformed observer might conclude the health department, instead of endeavoring to improve conditions, was engaged in direful conspiracies against the public good.

The effort to muzzle dogs during the hot weather was the occasion of a fierce protest and the effort died; also a number of children died in frightful suffering as a result of bites of unmuzzled dogs. The fruit dealers and produce merchants kicked up an awful fuss about screening their wares from flies and stray animals, although it is generally known that such exposure favors the spread of infectious diseases. The bakers likewise enter a frenzied protest against wrapping bread stuffs to protect them from the filthy hands and soiled garments of drivers and delivery boys, and pollution and infection known to come from creeping, crawling and flying germ-laden insects. And a member of the Hospital Board, a layman, argues before the City Council against a bill abolishing the filthy, nauseating, pestilential out-door privy vault.

Practically every measure looking to the conservation of the health of the people of St. Louis has had to battle its way to the statute books, while very many needed reforms have been prevented by the short-sightedness of certain citizens whose myopia is due to selfishness of the most regrettable sort. It is an inglorious warfare that battles for the dollar at the sacrifice of the life, health and happiness of people.

MILK BILL IMPERILED

The milk bill, introduced in the municipal assembly by the St. Louis Board of Health, regulating the supply of milk, cream, butter and buttermilk sold in St. Louis, and creating the office of milk inspector and twelve deputies, was recently rescued from an ignominious death by Delegate Wm. L. Igoe, congressman-elect, who is a member of the sanitary affairs committee of the House of Delegates.

An unauthorized and irregular meeting of the sanitary affairs committee, of which Richard A. Walker, a physician, is chairman, was called just before the House session and the decision reached to report the milk bill unfavorably. Delegate Igoe, who favored the bill, was not notified of the committee meeting, but he saved the bill by a

speech before the House after an almost unanimous vote had dealt the measure a death-blow. Owing to Igoe's emergency treatment the bill was resuscitated before life had become quite extinct; Delegate Roy M. Eilers lent his aid by moving that the bill be returned to the committee. The city of St. Louis should be grateful to Mr. Igoe and Mr. Eilers for the signal service they rendered the people in the championship of a measure that means so much to the health of the community, and especially to the health of the little children of the city.

The St. Louis House of Delegates enjoys a unique reputation, whether enviable or not is a matter of personal taste, and we shall not undertake to pass on so involved a question. But here is an important bill—one of the most important measures that has ever come before the municipal assembly; and yet an effort is made to hustle it out of the way surreptitiously and by illegal procedure. What does it all mean? Are we to take this sort of thing as indicative of sheer incapacity on the part of the delegates, or should we look further and see in such shameful action a deeper meaning, even a more ominous significance? We should like to know, and we doubt not that the citizens of St. Louis likewise desire to be enlightened as to the cause of such remarkable action.

UNIVERSITY EXTENSION WORK IN MEDICINE

In the past few years there has grown up a custom among the foreign and American universities, of exchanging teachers of talent—exchange professorships giving the various student bodies new ways of viewing their problems—and by special invitation many able instructors from foreign countries have given a lecture or a series of lectures before the students of American schools, and American colleges have interchanged lecturers.

During September of this year the Medical Department of Fordham University, New York City, carried out a successful experiment in university extension work which, as far as we know, is the first time intensive instruction of this nature has been applied to medical topics.

Five foreign lecturers renowned in their respective fields of research were induced to come for a three-weeks' series of demonstrations and lectures on nervous and mental diseases. Dr. Henry Head and Dr. Gordon Holmes, of London, illustrated topographical diagnosis of diseases of the nervous system; Dr. Carl Jung, of Zurich, lectured on psycho-analysis; Dr. Achucarro, of Madrid, discussed histopathology, and Dr. Knauer, of Munich, had the subject of psychiatry. To this array of talent from foreign lands were added several well-known American teachers on nervous and mental diseases, to round out the

course, so that all phases of the subject were presented in as complete form as possible in a three-weeks' course.

Some weak spots in the course were observed, but as a whole, it was very satisfactory and stimulating to deeper study. We hope the plan will be repeated in this specialty and other fields of medicine be elaborated by Missouri universities. A hundred students matriculated for the course at Fordham. Inasmuch as the same material can be had in any large center it would seem much easier for one or two hundred students to club together and bring the lecturers to them instead of separately visiting the individual clinics of each of the masters.

NEWS NOTES

THE United States Public Health Bureau has prohibited the use of common drinking-cups on all trains and in stations entering into interstate traffic.

DR. WILLIAM W. TURVER, of St. Louis, was arrested on November 13, charged with having caused the death of a young woman by a criminal operation.

THE osteopaths, according to newspaper articles, are making a demand on the Municipal Assembly at St. Louis for an institution where they may practice their special methods of reduction, induction and deduction in the treatment of the sick and afflicted wards of the city.

W. B. SAUNDERS COMPANY, medical publishers, are now established in their new building on West Washington Square, right in the heart of Philadelphia's new publishing center. They have erected a seven-story building housing all their departments under one roof. A cordial invitation is extended to the profession to visit and inspect the new plant.

ORANGE, N. J., has adopted an ordinance to prevent the propagation of the fly. This ordinance makes it a nuisance for anyone to maintain an accumulation of horse manure, garbage, or any other substance in which fly larvae, commonly known as maggots, breed. The fine is \$10, and each day in which the nuisance is permitted to exist constitutes a separate offense. If this ordinance is enforced it will have greater effect than anything else in annihilating the fly pest.

THE Committee on Arrangements of the American Medical Association for the meeting at Minneapolis, June 17-20, has announced arrangements for excursions to Yellowstone National

Park over the Northern Pacific R. R., following the adjournment of the meeting, June 20. The excursion will be personally conducted and extend from June 20 to June 30. Particulars in regard to this outing may be obtained from Dr. H. K. Kimball, Chairman, Minneapolis, Minn.

THE city of Springfield has recently adopted a milk ordinance establishing standards of purity for that product and providing for a chemist to analyze milk and other food products. Health Commissioner Dr. Wilbur Smith has appointed Dr. Harrison Hale, chief chemist at Drury College, to perform this duty. The ordinance is broad and inclusive and if properly enforced should give the citizens of Springfield clean, unwatered, non-formaldehyded milk, and other food stuffs free from the taint of preservatives and tuberculous infection.

W. F. LANOIX, of Kansas City, has been arrested once more charged with being responsible for the death of a young woman, a bride of a week, the victim of an illegal operation. This is the second charge of this kind against Lanoix. He was out on a \$5,000 bond awaiting trial on the other charge when he was arrested. It is asserted that Lanoix's real name is James M. Martin and that he was formerly a drug clerk in Quincy. After leaving Quincy he assumed the name and certificate to practice of Dr. Lanoix who died in Quincy several years ago. He was sued for divorce by his wife and it is said he contested the suit under the name of Martin.

THE American Surgical Association has appointed a committee consisting of Drs. William L. Estes, South Bethlehem, Pa.; Thomas W. Huntingdon, San Francisco, Cal.; John B. Walker, New York City; Edward Martin, Philadelphia, and John B. Roberts, Chairman, 313 S. 17th Street, Philadelphia, to report on the "Operative and Nonoperative Treatment of Closed and Open Fractures of the Long Bones" and the value of radiography in the study of these injuries. Surgeons who have published papers relating to this subject within the last ten years, will confer a favor by sending two reprints to the Chairman of the Committee. If no reprints are available, the titles and places of their publication are desired. Address Dr. John B. Roberts, Chairman, 313 S. 17th Street, Philadelphia.

THE State Conference of Charities and Corrections held its annual meeting at Hannibal, November 23-27. The following were on the program: Dr. Walter McNab Miller of Columbia, secretary of the Missouri Association for the Relief and Control of Tuberculosis; Jacob Billikopf, member of the Kansas City Board of Public Welfare; Mrs. Philip N. Moore of St. Louis,

former president of the General Federation of Women's Clubs; Miss Charlotte Forrester, inspector of the State Board of Charities and Corrections; Prof. Graham Taylor, warden of the Chicago Commons; Rev. Frank L. Johnson, pastor of the Metropolitan Tabernacle and Institute, Kansas City; Alexander Johnson, general secretary of the National Conference of Charities and Corrections; Dr. George B. Mangold, director of the St. Louis School of Social Economy; C. M. Hubbard, general manager of the St. Louis Provident Association, and William T. Cross, secretary of the Missouri State Board of Charities and Corrections.

THE United States Public Health Service has issued orders to all commissioned medical officers when traveling to make note of the "sanitary conditions of trains, vessels, stations and wharves, and to report the results of their observations. The purpose of this action is to enable the Surgeon-General to ascertain existing sanitary conditions of common carriers engaged in interstate traffic." The circular of instruction reads: "Hereafter all commissioned medical officers of the Public Health Service, when traveling under official orders on trains and vessels engaged in interstate traffic, will make such observations as may be practicable of the sanitary conditions of the trains and vessels on which they travel and the stations and wharves at which they stop. The results of these observations will be noted in a report to be submitted to the Bureau upon completion of the travel authorized. This letter does not authorize officers to conduct formal inspections or to give instructions or offer advice to employees of common carriers. The making of the observations mentioned is desired solely for the information of the Bureau and for the compilation of facts relative to the sanitary conditions prevailing in interstate traffic."

SINCE October 1, the following articles have been accepted for inclusion with New and Non-official Remedies:

Casoid Diabetic Flour, Thos. Leeming & Co.
 Paratophan, Schering & Glatz.
 Phenoco, West Disinfecting Co.
 Tuberculin B. E., Cutter Laboratory.
 Tuberculin B. E., Bovine, Cutter Laboratory.
 Tuberculin O. T., Cutter Laboratory.
 Tuberculin O. T., Bovine, Cutter Laboratory.
 Tuberculin B. F., Cutter Laboratory.
 Tuberculin B. E., Bovine, Cutter Laboratory.
 Tuberculin T. R., Cutter Laboratory.
 Tuberculin T. R., Bovine, Cutter Laboratory.
 Tuberculin Ointment (Moro's Reaction), Cutter Laboratory.
 Tuberculin for the Thermal Reaction, Cutter Laboratory.

OBITUARY

MR. WILLIAM L. GUPTON

The following resolutions were adopted at a meeting of the Board of Managers of the Missouri State Sanatorium for the Treatment of Incipient Tuberculosis, at Mt. Vernon, Oct. 12, 1912, in memory of the late Mr. W. L. Gupton, secretary of the Board of Managers:

WHEREAS, This board mourns the removal by death of one its oldest and most valued members, Mr. William L. Gupton of Montgomery City, who was a member of the original commission charged with the duty of establishing this sanatorium, and who, from that time to the end of his life, faithfully served the institution as secretary of its board of managers; therefore be it

Resolved, That in Mr. Gupton we have ever recognized a man of unusual loftiness and purity of character, a true Christian gentleman and patriotic citizen, alive to all the higher interests of the state and glad to serve the poorest of her citizens in any way that lay before him. He was singularly wise in counsel, untiring and devoted in the performance of every duty, even when, as in the latter months of his life, he was suffering from physical disabilities which would have justified his being excused from all care for others.

Resolved, That by the removal of Mr. Gupton from our number this board has been deprived of a wise counselor and this institution of a most efficient and sympathetic worker, while at the same time we all mourn the loss of a beloved friend.

Resolved, That we tender to the family of our late associate our tenderest sympathy and our warmest good wishes for their future welfare.

Resolved, That these resolutions be spread on the minutes of this meeting, and that a copy of the same be furnished to the family of the deceased.

E. W. SCHAUFFLER,

M. L. COLEMAN,

G. A. McCANSE,

WILLIAM PORTER,

W. MCN. MILLER,

Board of Managers.

SOCIETY PROCEEDINGS

FOURTEENTH DISTRICT MEDICAL SOCIETY

The society of the Fourteenth District was called to order at Marshall, Mo., at 10 a. m., by the president, Dr. C. T. Ryland.

The committee on constitution and by-laws made its report. The constitution was read, amended and adopted. The by-laws were read and adopted. The committee having finished the work assigned to it, was discharged.

It was moved and seconded that the hearing of the scientific program be postponed until the afternoon session and that a recess be taken until 1:30 p. m. Motion carried.

AFTERNOON SESSION

The meeting was called to order at the court-house at 1:30 p. m. by the president.

A case of Dr. T. W. Tuttle's was present for demonstration as a clinic. Dr. Tuttle being absent, the president appointed a committee to examine Dr. Tuttle's case and to report on the same. The committee consisted of Drs. Abney, Harris and Roberts.

Dr. Carthrae read a paper on "Blood-Pressure," which subject was splendidly handled. The discussion was led by Drs. Manning, Weitz and Hall.

The committee appointed to examine Dr. Tuttle's patient reported the case as one of tetanus which had recovered under treatment with antitoxin, and now had developed tuberculous hip-joint disease. They gave the history and demonstrated the case.

Dr. J. F. Mackey read a paper on "Endometritis." Dr. Mackey went into this subject very deeply, handling it scientifically. The paper was discussed by Drs. Gore, Smiley, Roberts, McGuire, Harris and others.

Dr. Weitz read a paper on "Abdominal Pain." The various points helpful in diagnosis brought out by Dr. Weitz were illustrated by case histories. The subject was discussed at length by Drs. Carthrae, Roberts, Spotts, Harrison and others.

Dr. J. R. Hall read a paper on "Immunity." The subject was discussed by many of those present.

A telegram from Dr. G. A. Aiken was read: "Regret inability to be present; know time given me on program will be better spent." The society regretted that Dr. Aiken could not be present and read his paper on "Pneumonia."

Dr. Weitz reported that Dr. Evans was sick and could not be present to read his paper on "Typhoid Fever."

JOHN R. HALL, M.D., Secretary.

SOUTHEAST MISSOURI MEDICAL SOCIETY

The meeting of the Southeast Missouri Medical Society met recently at Cape Girardeau. This was one of the biggest and best meetings the society has known of late years.

Among the papers read were: "Malarial Hemoglobinuria," by Dr. T. R. Frazer of Commerce; "Arteriosclerosis," by Dr. A. H. Hamel of St. Louis; "Diagnosis and Prognosis of Heart Lesions," by Dr. H. L. Cunningham of Cape Girardeau; "Blood and Blood-Pressure, with Lantern-Slide Demonstration," by Dr. Charles H. Nielson of St. Louis.

Several interesting cases were presented, chief among which were ununited fracture of femur, presented by Dr. H. L. Reid of Charleston, and hypertrophic muscular paralysis and removal of parietal bone and evacuation of meningeal abscess due to necrosis of parietal bone, by Dr. John D. Porterfield, Jr., of Cape Girardeau.

The Fourth District Health Society was organized the morning of the first day, which meeting was pursuant to a call from the State Board of Health sent out to all the local registrars. Quite a number of the registrars joined the society.

Dr. Boone of Charleston was elected president of the Fourth District Health Society and Dr. Ashley of Bloomfield was elected secretary. The Health Society and the Southeast Missouri Medical will, in the future, endeavor to have their meetings on the same day and at the same place.

W. S. HUTTON, M.D., Secretary.

BENTON COUNTY MEDICAL SOCIETY

The Benton County Medical Society met in regular session in Warsaw, October 16, in Dr. Savage's office. Dr. H. E. Dunlap, vice-president, called the meeting to order at 10 a. m., and after the reading of the minutes of the last meeting, which were approved, Dr. E. C. Snavely's application for membership was voted on, after a careful discussion, and he was unanimously elected a member. We are in unison with that altruistic desire of securing every doctor in the county to become a member of the county and state societies.

Dr. E. H. Gist of Fristoe prepared a paper to be read before the society and also brought a clinic 18 miles from his field of labor. Owing to the shortness of time between trains for those doctors living in the northern

part of the county, and having to return on the same, the society decided to have the clinic first and the paper later.

The patient, Mrs. B., aged 34, the mother of four children, with family history of tuberculosis in two cases. Dr. Gist gave a history of the case as he found her some three months ago, and Dr. Dunlap acted as quizmaster for the class, giving a very thorough and careful oral examination, eliciting the facts that her main trouble was a continued aching pain in the region of the stomach, with continued constipation for a long time, at times slight derangement of the heart, suffered frequently with fermentation in stomach, producing headaches, nervousness and at times bilious vomiting. No fever. On examination of patient on the table, the abdomen showed some distention, with some ascites, increased pain on pressure over right hypochondriac and lower epigastric regions. Kidneys subnormal, action frequent but scanty and high colored. Reaction negative. Vaginal examination normal. After finishing the examination of the case, a careful résumé of the facts brought out with differential diagnosis a consensus of opinion that there was a malignant condition developing in the region of the gall-bladder or colon. At this point the telephone rang, announcing that dinner was ready at the newly opened Savage Café, which had prepared a special spread for the members of the society, so on motion the meeting closed, after thanking Dr. Gist for this very valuable and interesting case to take up a further discussion of the case, and the reading of the doctor's paper at the next regular meeting in December.

Those present were: Dr. H. E. Dunlap, vice-president, Cole Camp; Dr. E. L. Rhodes, Lincoln; Dr. E. H. Gist, Fristoe; Drs. R. L. Pomcroy, E. F. Haynes, H. G. Savage, W. H. Aber, M. L. Sands, D. E. Hooper and J. R. Smith of Warsaw.

Our president, Dr. Marion Dillon of Fairfield, was unable to attend on account of pressure of "political" business, as he is a candidate for Collector of Benton County on the Democratic ticket, and owing to the short time before election and the seriousness of his "cases," he was excused.

After the meeting closed, the secretary received the transfer card of Dr. W. H. Aber from the Johnson County Medical Society, recommending him to membership to the Benton County Society, being in full standing in that society and commending him highly to our membership.

J. R. SMITH, M.D., Secretary.

[NOTE.—Since the above report was written, the election returns showed Dr. Dillon had been elected Collector of Benton County by a large majority.—Ed.]

BUCHANAN COUNTY MEDICAL SOCIETY

The regular meeting of the St. Joseph-Buchanan-Andrew County Medical Society was held at their rooms Wednesday evening, November 20, Dr. J. J. Byrne in the chair. There were twenty-eight members present.

Dr. E. J. Goodwin, secretary of the Missouri State Medical Association, was present, and after introduction, addressed the society.

Dr. Lee suggested that the Committee on Public Health and Legislation be instructed to watch the interests of the society at Jefferson City, and on motion of Dr. Woodson, Dr. Lee was instructed to furnish the society with the copy of a bill to be introduced.

Dr. L. A. Todd was not present to read his paper.

Dr. C. H. Wallace read a paper on the "Diagnosis and Treatment of Surgical Infections of the Kidneys."

Dr. A. B. McGlothlan read a paper on "Catheterization of the Ureters; Its Value; the Dangers."

These papers were interesting and highly enjoyed by the members present. The following gentlemen took part in the discussion: Drs. W. T. Elam, C. A. Good,

Charles Geiger, W. L. Kenney, J. J. Bansbach, A. H. of Armstrong had been transferred to Callaway County. There are twenty members; no additions, delinquents, expulsions, suspensions or deaths.

There being no further business before the society the meeting adjourned. W. F. GOETZE, M.D., Secretary.

C. W. WATTS, M.D., Secretary.

CASS COUNTY MEDICAL SOCIETY

Cass County Medical Society held its regular meeting at Harrisonville, October 10. The following members were present and took part in the meeting: Drs. T. W. Adair, H. S. Crawford, A. R. Elder, D. S. Long, R. D. Ramey, J. S. Triplett and W. K. Wright.

The program was as follows: "Foreign Bodies in the Bronchi." The author of the paper being absent, the discussion was taken up, led by Dr. Triplett, and followed by other members present. Several interesting clinical cases were given and the subject thoroughly discussed.

"Summer Diarrhea of Children," by T. W. Adair, M.D. This was an excellent paper on a very interesting subject to the general practitioner. It was discussed by all the doctors present.

Dr. W. K. Wright of East Lynne stated that he expected to remove to Manistique, Mich., in a few days, and the society adopted appropriate resolutions, which were responded to in a few well-chosen remarks.

The society will celebrate the tenth anniversary of its organization at the next meeting, December 12. The afternoon program will be followed by a banquet, to which the members are all invited with their wives.

H. S. CRAWFORD, M.D., Secretary.

CLINTON COUNTY MEDICAL SOCIETY

At the fourth quarterly meeting, it being also the annual meeting, of the Clinton County Medical Society, held in the sheriff's office at Plattsburg, October 22, the following officers for 1913 were elected: president, C. H. Risley, Cameron; vice-president, C. W. Chastain, Plattsburg; secretary-treasurer, Frank Fulton, Plattsburg (reelected); delegate, M. L. Peters, Cameron.

The scientific program of the meeting consisted of the following papers:

"The Bible and Sanitation," by Dr. J. T. Kimsey of Lathrop; "Uncinariasis," by Dr. F. C. Eastman of Cameron.

These papers were highly interesting and brought out a good discussion.

FRANK FULTON, M.D., Secretary.

HOWARD COUNTY MEDICAL SOCIETY

Howard County Medical Society met in regular session at the office of the secretary, Fayette, November 1. Dr. T. C. Richards presided.

The following members were present: Drs. Wright, Lewis, Lee, Payne, Richards, Burgwin and Watts. The councilor of the district, Dr. A. R. McComas of Sturgeon, was also present.

No papers were read and no clinical cases exhibited, so the society proceeded to elect officers for the ensuing year, and the following were elected:

President, T. C. Richards, Fayette; first vice-president, A. B. Burgwin, Fayette; second vice-president, C. H. Lee, Fayette; secretary-treasurer, C. W. Watts, Fayette (reelected); censor, C. H. Lee (reelected); delegate, V. Q. Bonham, Fayette; alternate, U. S. Wright, Fayette.

Dr. A. R. McComas, councilor, addressed the society and explained some of the efforts for legislative work along medical and public lines at the coming session of the legislature.

The secretary read his annual report as follows: The society held six meetings at which two papers were read and four clinical cases presented. Dr. J. Y. Hume

HOWELL COUNTY MEDICAL SOCIETY

The Howell County Medical Society met in regular session, October 10, in the offices of Drs. D. J. Nichols and J. H. Elliott, at West Plains, with Dr. A. H. Thornburgh in the chair.

Officers present: Dr. Thornburgh, chairman; Dr. Cunningham, vice-chairman; Dr. J. H. Elliott, secretary-treasurer. Members present: Drs. H. C. Shuttee, Robert S. Spears, Joseph B. Cunningham, D. J. Nichols, A. H. Thornburgh, E. E. Evans, Joseph McB. Johnson and James H. Elliott. Visitors present: Dr. R. E. Hogan of St. Louis, Mo., and Dr. J. C. Eckles of Siloam Springs, Mo.

Dr. H. C. Shuttee read a paper on "Hypertrophied Tonsils," which was appreciated greatly. Motion made and carried unanimously to have paper published in state medical journal at Dr. Shuttee's pleasure. Dr. Wuesthoff had a paper on "Tonsillitis," and Dr. Black one on "Chronic Bronchitis in Children," but both being absent, they were retained with Dr. E. E. Evans as essayist for next meeting in December, 1912.

Dr. Eckles of Siloam Springs was elected to membership and Dr. R. E. Hogan of St. Louis was elected to honorary membership in the society, the secretary, Dr. Elliott, being instructed to cast the entire vote for them.

Dr. Hogan gave an interesting talk on the uses of typhoid bacterin as a therapeutic and immunizing agent in typhoid fever, laying most stress on it as immunizing agent. Dr. Hogan's talk was timely because of the typhoidal conditions in this section.

The December meeting will be the time for election of officers and collection of dues for 1913, and we are hoping to have some good and live officers and that much good will be given us from the incoming association year. Our society is now alive, working and "doing things" that are inspiring to all the members.

JAMES H. ELLIOTT, M.D., Secretary.

MISCELLANY

CONFERENCE OF STATE SECRETARIES

One of the most important meetings since the reorganization of the American Medical Association at St. Paul, in 1901, was the Conference of the Secretaries of State Societies, called by the Committee on Uniform Regulation of Membership at the Association headquarters, Chicago, October 23 and 24. This committee was appointed in 1908, in accordance with a recommendation made in the Secretary's report for that year. At the Atlantic City session, last June, the committee summarized its reports for the last four years, and recommended that a conference of state secretaries be authorized to consider the entire question of membership conditions in the county, state and national organizations. This recommendation was referred to the Board of Trustees and a conference between the committee and the state secretaries was authorized by the Board of Trustees, to be held at the same time as the October meeting of the board. Appropriations were made for paying the expenses of all state secretaries who attended the meeting. The conference was called to order at 10:30 a. m., Wednesday, October 23, at the Association building in Chicago, by Dr. Thomas McDavitt, secretary of the Minnesota State Medical Association and chairman of the Committee on Uniform Regulation of Membership.

THE ATTENDANCE

Thirty-eight states were represented, the roll showing the following in attendance:

Dr. W. W. Watkins, Phoenix, Ariz.
 Dr. C. P. Meriwether, Little Rock, Ark.
 Dr. Philip Mills Jones, San Francisco, Cal.
 Dr. G. W. K. Forrest, Wilmington, Del.
 Dr. W. C. Lyle, Augusta, Ga.
 Dr. E. E. Maxey, Boise, Ida.
 Dr. E. W. Weis, Ottawa, Ill.
 Dr. Charles N. Combs, Terre Haute, Ind.
 Dr. J. W. Osborn, Des Moines, Iowa.
 Dr. L. R. DeBuys, New Orleans, La.
 Dr. W. B. Moulton, Portland, Maine.
 Dr. W. S. Gardner, Baltimore, Md.
 Dr. H. D. Arnold, Boston, Mass.
 Dr. Wilfrid Haughey, Battle Creek, Mich.
 Dr. Thomas McDavitt, St. Paul, Minn.
 Dr. E. F. Howard, Vicksburg, Miss.
 Dr. E. J. Goodwin, St. Louis, Mo.
 Dr. H. D. Kistler, Butte, Mont.
 Dr. Joseph M. Aikin, Omaha, Neb.
 Dr. Martin A. Rohison, Reno, Nev.
 Dr. D. E. Sullivan, Concord, N. H.
 Dr. Thomas N. Gray, East Orange, N. J.
 Dr. R. E. McBride, Las Cruces, N. Mex.
 Dr. John Ferrell, Raleigh, N. C.
 Dr. H. J. Rowe, Casselton, N. Dak.
 Dr. J. H. J. Upham, Columbus, Ohio.
 Dr. Claude A. Thompson, Muskogee, Okla.
 Dr. M. B. Marcellus, Portland, Ore.
 Dr. C. L. Stevens, Athens, Pa.
 Dr. J. Perkins, Providence, R. I.
 Dr. Edgar A. Hines, Seneca, S. C.
 Dr. Perry Bromberg, Nashville, Tenn.
 Dr. H. Taylor, Fort Worth, Tex.
 Dr. W. B. Ewing, Salt Lake City, Utah.
 Dr. C. H. Beecher, Burlington, Vt.
 Dr. Grant Calhoun, Seattle, Wash.
 Dr. Charles S. Sheldon, Madison, Wis.
 Dr. W. H. Roberts, Sheridan, Wyo.

No representatives were sent from Alabama, Colorado, Connecticut, District of Columbia, Florida, Kansas, Kentucky, New York, South Dakota, Virginia and West Virginia. No effort was made to secure the attendance of the secretaries of the Hawaiian Territorial Medical Society, Medical Association of the Isthmian Canal Zone or the Philippine Islands Medical Society, as these secretaries were too far removed from the place of meeting to make it possible for them to attend.

THE PROGRAM

The following program was carried out:

1. Call to order, Dr. Thomas McDavitt.
2. History and Development of Membership in the American Medical Association and Its Component Parts, Dr. F. R. Green.
3. Some of the Difficulties of the Present Situation, Dr. A. R. Craig.
4. Remedies Proposed by the Committee, Dr. Thomas McDavitt.

DISCUSSION

A general discussion of membership regulation was conducted under the following heads:

1. Fiscal Year. Should the fiscal year coincide with the calendar year? Should the fiscal year be the same in all county and state societies?
2. Should membership expire automatically at the end of the calendar year, and a new roster for each county and state society be made with the beginning of each year?
3. When should membership reports from county societies to state secretaries be due?
4. Should the dues of new members, joining after the first of the year, be prorated for the remainder of the year?
5. Should an admission fee be required in addition to the annual dues?
6. Should uniform application blanks, receipt blanks, and membership and transfer cards be adopted?
7. Should constituent state associations hold charters from the American Medical Association?
8. Should a uniform plan for the transfer of members be adopted?

In addition to the above Dr. George H. Simmons, editor and general manager, discussed the question of

membership in the American Medical Association, and the changes in name proposed by the Board of Trustees.

REPORT OF THE COMMITTEE ON RECOMMENDATIONS

After two days' discussion it was evident that the secretaries present were agreed as to the advisability of a uniform fiscal year for all parts of the organization, to coincide with the calendar year, and that they favored the expiration of membership at the end of each year and a complete revision of the membership rolls at the beginning of each year. The committee on recommendations, consisting of Dr. E. J. Goodwin, Missouri State Medical Association; Dr. Wilfrid Haughey, Michigan State Medical Society; Dr. Perry Bromberg, Tennessee State Medical Association; Dr. William S. Gardner, Medical and Chirurgical Faculty of Maryland, and Dr. F. R. Green, secretary of the committee and of the Council on Health and Public Instruction, brought in a report recommending the adoption of provisions on these two points, and that all other points be deferred for further consideration. The report of the committee follows:

The Committee on Recommendations herewith submits the following report:

1. We recommend that this conference endorse the plan of having the fiscal year coincide with the calendar year in all parts of the organization. We further recommend that secretaries of all state associations which have not already adopted this provision bring this matter to the attention of their associations and recommend its adoption.

2. We recommend that constituent state associations adopt provisions making dues in component societies payable on January 1 of each year, and requiring county secretaries to report to state secretaries all members in good standing, together with their per capita assessment for the current year not later than March 31. State societies desiring to do so may provide a shorter period.

3. The recommendation regarding the third question under discussion is covered by our recommendation of the second.

4. Regarding the prorating of dues, we recommend that this be made optional with each component society.

5. Regarding an admission fee for membership we recommend that this be made optional with component societies.

6. While the committee recognizes, as a general principle, that a uniform system of blanks for county and state societies is desirable, as soon as practicable, we recommend further consideration of this question at a later conference.

7. We recommend that the House of Delegates of the American Medical Association be asked to consider the advisability of issuing charters to constituent state associations.

8. We recognize the desirability and advantage of a uniform method of transfer, but this system cannot be established until there has been developed a greater uniformity in other details of organization. We therefore recommend that this question be made the subject of discussion at a future conference.

9. The committee recognizes the value of this conference to the state association secretaries, and to the purpose of organization; it therefore recommends that future conferences of this character be held.

The report of the committee was unanimously adopted by a rising vote. It was also moved and carried that the secretary be requested to send copies of the report to each state secretary and to each state journal, and that the proceedings of the conference, as published in the *Bulletin*, be furnished to each state secretary desiring them, in sufficient quantities to send one to each member of the state association. After a vote of thanks to the Board of Trustees for making this conference possible by the appropriation, the conference adjourned.

THE LAYMAN'S VIEW

We take pleasure in reproducing an editorial from the New York *Sun* of September 21, which quotes the resolution introduced by Dr. A. W. McAlester, Jr., at the last annual meeting at Sedalia, concerning the attitude of the profession toward that class of medical journals whose advertising pages contain fraudulent and misleading advertisements. The comment of the writer in the *Sun* is worthy the thoughtful consideration of every member of the Association. The editorial reads:

"A Serious Menace to the Medical Profession.—The absence of cooperation among physicians in the promotion of their interests is a matter of frequent observation. It is therefore gratifying to record an instance exemplifying the recognition of a danger menacing both the public and the profession, and the action taken by at least one organization to meet it.

"The State Medical Association of Missouri has adopted a resolution which pronounces it 'derogatory to the best interests of members to publish articles in medical journals whose advertising pages contain fraudulent or questionable advertisements.' The lay reader cannot realize the importance of this enactment, not for the doctor alone but also for the interests of the public, which is the unsuspecting victim and the greatest sufferer from the abuses this resolution is aimed to correct, the prescription of secret nostrums and other proprietary drugs by physicians. It is not generally known that there are numerous drugs which have never been shown to possess the slightest palliative, much less curative properties, but which by reason of skilful and persistent advertising have come to be credited with more or less valuable properties; and there are other drugs more or less efficient as palliatives, the manufacture of which is secret, which are exploited under various designations, names or devices. Some persons say they have been benefited, others that they have been actually cured by these secret nostrums; just as many declare they have obtained similar benefit from all kinds of treatment, magnetic enures, healers, masseurs, etc.

"The *Journal of the American Medical Association* has for some time bravely urged the importance of checking the use of these nostrums which have unfortunately become popular among doctors who are incapable or too indolent to devise their own formulae. And they are encouraged, indeed actually taught, in their uses by certain medical journals of otherwise good repute, which thrive on large incomes from the advertisements of the manufacturers. It is so much easier to write a prescription for X's Nerve Tonic than even to write the ingredients of which it pretends to be composed and the properties of which are well known. Worse than this is the prescribing of preparations for the composition of which and their curative value the physician must trust to the manufacturer, whose chief interest lies in their financial success. The ingredients if stated are not mentioned in the text books on drugs. A glib tongued agent calls at the doctor's office, thrusts upon him samples and so-called literature, landatory and alluring by titled names of which he has never heard. The headache medicine, for instance, is prescribed; it alleviates probably because it contains a coal tar preparation. Instead of prescribing the latter himself he gives the next patient this nostrum. The result is that on the next similar occasion the patient buys the nostrum from the druggist without visiting the doctor; not rarely he recommends it to others. The druggist alone reaps the benefit, while the doctor and the patient suffer losses they little suspect.

"The credulity of the unthinking doctor is not a whit beneath that of the misguided layman, but it is far more contemptible. For this reason the public needs to be warned against doctors who prescribe drug preparations bearing some definite name or title rather than a regular prescription. There never was a time when drugs were so universally and freely used by lay persons, and the chief reason may be found in the reck-

lessness with which named proprietary medicines not mentioned in the text-books are prescribed by doctors. The Latin prescription, though antiquated, is at least not so easily duplicated.

"If respectable medical journals would refuse advertisements to secret or semi-secret nostrums they would not be used by physicians. Since these medical journals derive their principal revenue from advertisements, it is not in human—commercial—nature to adopt this suicidal course. The remedy lies in the adoption of the course pointed out above by the lay public and the unwavering disciplining of physicians who lend their influence by publishing articles in these journals which carry advertisements of nostrums. The American Medical Association owes it to the medical profession, the best types of which it represents, to emulate the action of the Missouri Medical Association and thus protect the professional interests which are seriously menaced and also protect the public against indolent and ignorant doctors."—N. Y. *Sun*, Sept. 21, 1912.

THE FIRST EXPEDITION FROM THE TULANE UNIVERSITY SCHOOL OF TROPICAL MEDICINE TO THE TROPICS FOR THE STUDY OF MALARIA

This expedition was made possible through the kindness of an unknown friend of the School who, through Dr. Isadore Dyer, Dean of the Medical Department of Tulane University, contributed a fund to finance the project.

The United Fruit Company, who have already contributed \$25,000 towards the expenses of the School of Tropical Medicine, placed their steamships and other equipment at the service of the School for the transportation gratis of the expedition and apparatus. Colonel W. C. Gorgas, Chief Sanitary Officer of the Panama Canal Zone, with various members of his staff, placed all the material in his hospitals at the disposal of the expedition and extended every possible courtesy.

The personnel of the expedition consisted of two members of the School, Dr. Charles Cassidy Bass, Assistant Professor of Tropical Medicine and Hygiene, and Dr. Foster Mathew Johns, Assistant in the Laboratories of Tropical Medicine and Hygiene.

The object of the investigation was the cultivation of the malarial parasites *in vitro* which had already been accomplished by Professor Bass, but many details of which remained to be elucidated and confirmed.

In this the party obtained complete success. It was found that the malarial plasmodia can be grown in human serum, in Locke's fluid (from which calcium chlorid is omitted) and in human ascitic fluid. In the majority of the cases dextrose must be added to the medium to secure satisfactory growth. The most favorable temperature for the cultivation of plasmodia is about 40 C.

Positive cultures were obtained from 29 cases of estivo-autumnal malaria, 6 cases of tertian and 1 case of quartan. Cultures were carried on for four generations from the parent culture before the expedition left Central America, and can probably be maintained indefinitely.

The full report of the expedition may be found in the October number of the *Journal of Experimental Medicine*.

In addition to these researches the School has also carried out experimental work on pellagra, leprosy, beri-beri, blackwater fever, filariasis, and other tropical diseases, which work will be found in the forthcoming first report of the School.

The School is under the direction of Dr. Creighton Wellman formerly of West Africa and the London School of Tropical Medicine, is an integral part of the Medical Department of Tulane University of Louisiana, and begins its second year of existence with bright prospects.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Non-official Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

CASOID DIABETIC FLOUR is a mixture of the albuminoids of wheat (gluten) and of milk (casein) composed of approximately: proteins 84.5, fat 1.4, mineral matter 2.5, cellular fiber, etc., 0.7, water 10.8. Employed in cases where carbohydrates are contra-indicated, such as diabetes, amylaceous dyspepsia, etc. Thomas Leeming & Co., New York (*Jour. A. M. A.*, Nov. 2, 1912, p. 1622).

PARATOPHAN is methyl-atophan, 6-methyl-2-phenyl-quinolin-4-carboxylic acid, $\text{CH}_3\text{C}_6\text{H}_4\text{N}.\text{C}_6\text{H}_5.\text{COOH}$, 6:2:4 = $\text{C}_{17}\text{H}_{15}\text{O}_2\text{N}$. Its action, uses and dosage are the same as atophan (see Truth About Medicine Department, April, 1912, p. 408). Paratophan tablets contain paratophan 0.5 gm. ($7\frac{1}{2}$ grains). Schering & Glatz, New York (*Jour. A. M. A.*, Nov. 2, 1912, p. 1623).

PHENOCO is a preparation of coal-tar cresote and higher phenol-homologues in soap solution. It is stated to contain 8 per cent. coal-tar cresote (obtained by the destructive distillation of coal, and containing 15 per cent. cresol but no phenol), 62 per cent. higher phenol-homologues (phenols containing two or more methyl groups) and 30 per cent. soap. It is miscible with water, forming an emulsion. It is an antiseptic and germicide, being in the latter respect fifteen to sixteen times as strong as phenol, and for mammals about one-half as toxic as phenol. It is used in dilutions of 1 per cent. to 5 per cent., or higher. The West Disinfecting Co., New York (*Jour. A. M. A.*, Nov. 9, 1912, p. 1717).

TUBERCULINS represent the toxins of the tubercle bacillus. They may be in the form of a filtered extract of the bacilli or may be composed of the pulverized insoluble substance of the bacilli themselves. In the latter, or emulsified form, tuberculin is known as tubercle vaccine, and might be classed with the "Bacterial Vaccines." Supplied in the following forms:

Tuberculin Bacillen Emulsion, Tuberculin B. E., is a suspension of ground tubercle bacilli containing 5 mg. of the solid tubercle substance to each c.c.

Tuberculin B. E. Bovine is made in the same manner as the foregoing, except that the tubercle bacillus used is of the bovine type.

Tuberculin Old (Tuberculin O. T.), preserved with trikresol in 1 c.c. vials.

Tuberculin O. T. Bovine is made by the same process as the foregoing, except that the organism used is of the bovine type.

Tuberculin Bouillon Filtrate is preserved with 0.4 per cent. trikresol in 1 c.c. vials.

Tuberculin B. F. Bovine is made in the same manner, except that the bovine type of tubercle bacillus is used.

Tuberculin T. R., Tubercle Residue, is a suspension of 2 mg. of tubercle substance in each c.c. of the finished product.

Tuberculin Ointment (Moro Ointment) is a mixture of 50 per cent. each anhydrous wool fat and Tuberculin O. T., human strain.

Tuberculin for the Thermal Reaction contains in each c.c. 1 mg. Tuberculin O. T. Cutter Laboratory, Berkeley, Cal. (*Jour. A. M. A.*, Nov. 9, 1912, p. 1717).

AFRIDOL, sodium hydroxymercuric tolylate, $\text{C}_6\text{H}_5(\text{CH}_3)(\text{COONa})\text{HgOH}$, 2:3:1. It is a white powder which does not respond to ordinary reactions of mercury, the mercury being in a non-ionized form. It is supplied only in the form of Afridol Soap, which contains 4 per cent. afridol. Used as a disinfectant for the hands and instruments and for the treatment of parasitic diseases. Farbenfabriken of Elberfeld Co., New York (*Jour. A. M. A.*, Nov. 23, 1912, p. 1887).

REFORM IN MEDICINES

INCOMPATIBILITY OF SODIUM ACID PHOSPHATE AND HEXAMETHYLENAMIN.—It has been found that when hexamethylenamin and sodium acid phosphate (sodium dihydrogen phosphate) are contained in a solution that decomposition gradually takes place. The hexamethylenamin is decomposed with liberation of formaldehyd, the ammonia set free at the same time neutralizes the acidity of the sodium acid phosphate. The same reaction takes place more slowly in the cold. Therefore, the therapeutic effects of the two drugs are practically lost if such a solution is kept for any length of time (*Jour. A. M. A.*, Nov. 2, 1912, p. 1640).

NOSTRUMS AND THE MEDICAL PROFESSION.—Samuel Hopkins Adams calls attention to an instance of the average practitioner's attitude toward "patent medicines." He states that a newspaper publisher who wanted to exclude all fraudulent or questionable advertising, on submitting an advertisement for Duffy's Malt Whiskey to four physicians for an opinion, was advised that there was no reason why the advertisement should not be accepted. There is no excuse for members of the medical profession to plead either carelessness or ignorance in matters of this sort. It is the business of physicians to be informed on such matters, and they should know that unwarranted and dangerous claims are being made for Duffy's Malt Whisky (*Jour. A. M. A.*, Nov. 2, 1912, p. 1640).

ACETYSALICYLIC ACID AND ASPIRIN.—Examination reported in German pharmaceutical journals shows that acetylsalicylic acid manufactured by reliable firms is of good quality and equal in every way to that sold under the proprietary name "aspirin." Acetylsalicylic acid is a definite chemical and is the same, no matter who manufactures it. Because of the too great readiness with which patents are granted in the United States and because of the construction of our patent laws it has been possible for the Farbenfabriken of Elberfeld Company, which controls the trademark on the word aspirin, to obtain a patent in the United States on acetylsalicylic acid, thus securing a complete monopoly in this country. In view of the patent grant, which has been upheld by the courts, it is inadvisable to have anything to do with any other brand than that of the patentees (*Jour. A. M. A.*, Nov. 2, 1912, p. 1642).

AUBERGIER'S SYRUP OF LACTUCARIUM.—Physicians have frequently wondered why they were unable to obtain from the Syrup Lactucarium, U. S. P., the therapeutic results which they were able to obtain from a proprietary product known as Aubergier's Syrup of Lactucarium, sold by Fougere & Co. at an exorbitant price and put on the market in patent-medicine style. With the advent of the Food and Drugs Act the secret of the soporific effect of the Aubergier product was explained—the label on the bottle now declares it to contain morphin. One of the advantages claimed for ready-made prescriptions over the made-to-order variety or even over pharmacopeial preparations, is that they are more elegant in appearance and less offensive to the nostrils and palate. This is the common experience of physicians who, having prescribed some ready-made mixture, wish to change the dose of one of the constituents and write a prescription or ask their pharma-

cist to prepare a similar preparation. As the proprietary did not have the composition declared on the label, a mixture based on the formula will differ more or less widely from the proprietary it is expected to resemble (*Jour. A. M. A.*, Nov. 9, 1912, p. 1732).

A SHOT-GUN PRESCRIPTION.—A prescription, recently written by a physician in a prominent eastern city, called for the following ingredients: cascara evacuant, strychnin sulphate, sodium bicarbonate, codein sulphate, caffein citrate, sodium salicylate, solution of potassium citrate, solution of iron and ammonium acetate. It is strange that in the light of our present knowledge, a physician would be guilty of writing such a prescription (*Jour. A. M. A.*, Nov. 9, 1912, p. 1733).

THE GULLIBLE DOCTOR.—Dr. J. E. Reeder, Dyersville, Iowa, deprecates that physicians heed the recommendations for proprietary preparations advanced by ignorant salesmen. It seems as if the average physician could not say "no" to these semi-patent-medicine agents, and this accounts for the number of thrifty proprietary houses which are supported by the "gullible doctor" (*Jour. A. M. A.*, Nov. 9, 1912, p. 1733).

CRIPPLING THE FOOD AND DRUGS ACT.—The discussion of the McCabe-Wilson-Dunlap conspiracy to oust Dr. Wiley from the Bureau of Chemistry showed that the Food and Drugs Act was seriously crippled, both by the inadequacy of the punishment meted out to the violators and the indeterminable delay in bringing cases to trial. Good examples of the law's delay are two recent notices of judgment. One of these was the misbranding of a "walnut oil" by the Mayor Walnut Oil Company, Kansas City, Mo., the offense having been committed in January, 1910, the case finally came to trial in April, 1912, and the public document giving information about this case was not issued until September, 1912. The other is a case of a misbranded hair tonic, Fagret's Hair Tonic, L. Fagret Company, Baltimore, Md., committed in August, 1910, brought to trial in April, 1912, and made public in September, 1912. Both were clear-cut cases of misbranding (*Jour. A. M. A.*, Nov. 16, 1912, pp. 1802 and 1811).

SUGGESTION AND SUICIDE.—That the suggestive effect of reading details of suicide is a powerful factor in the causation of suicides among susceptible persons is recognized. The suggestion is more likely to have influence if in the account of the suicide some poisonous article commonly found in households, such as phenol, lysol and rough on rats is named as the agent employed by the suicide. In New South Wales newspapers have been asked by the pharmaceutical board not to publish the names of poisons used by suicides, and in several instances they have heeded this request, particularly in connection with lysol poisoning cases, which are numerous in all the states of the commonwealth (*Jour. A. M. A.*, Nov. 23, 1912, p. 1895).

PROGRESS AND REACTION.—To the disgrace of the medical profession it must be said that the publishers of lay journals have shown a greater desire to rid their advertising pages of fraudulent medical advertisements than have the publishers of most medical journals. The *Pulaski County Democrat* of Winamac, Ind., explains why it turned down an advertisement for the "consumption cure," Nature's Creation. On the other hand, the *Denver Medical Times* boasts of the fact that the proprietary preparations advertised in the journal are not confined to those that have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Nonofficial Remedies (*Jour. A. M. A.*, Nov. 23, 1912, p. 1597).

DUFFY'S MALT WHISKEY.—During the Spanish-American War Duffy's Malt Whiskey qualified as a "patent medicine" and paid a special tax that was put on "patent medicines" as a means of raising revenue. Even while the Federal government was declaring it a medicine, the supreme court of the state of New York decided that Duffy's Malt Whiskey was not a medicine, but a liquor, and that persons selling it should be required to hold a liquor license. While chemists had testified that Duffy's Malt Whiskey was nothing but a

poor-grade whiskey, the Duffy Malt Whiskey Company in attempting to secure a new trial, submitted evidence that the preparation contained the following drugs: columba, hydrastis, pareira and taraxacum, though nothing was said about the amount of these drugs. The state chemist of North Dakota in 1906 declared that analysis indicated it to be nothing more than neutral spirits, colored and flavored. In 1908 the U. S. government seized a quantity of Duffy's Malt Whiskey on the charge of being adulterated and misbranded under the Food and Drugs Act, but so far the case has not been tried, apparently, because of the political influence of the Duffy Malt Whiskey Company (*Jour. A. M. A.*, Nov. 23, 1912, p. 1905).

CONVERSE TREATMENT FOR EPILEPSY.—Practically every nostrum on the market sold for the self-treatment of epilepsy contains large quantities of bromids. These are taken by the patient in utter ignorance of their danger and in quantities that no physician with any respect for the patient's safety or his own good name would dare prescribe. Such doses suppress the attacks, but brutalize the patient, and lead to a loss of mental and physical activities. The Converse Treatment for Epilepsy was analyzed by Prof. E. F. Ladd of the North Dakota Agricultural Experiment Station, and found to be an aqueous solution of several bromids containing bromids equivalent to potassium bromid 15.486 per cent., the bromids being present as sodium bromid, potassium bromid, strontium bromid, ammonium bromid and iron bromid (*Jour. A. M. A.*, Nov. 23, 1912, p. 1911).

BOOK REVIEWS

THE PRACTITIONER'S VISITING-LIST FOR 1913. An invaluable pocket-sized book containing memoranda and data important for every physician, and ruled blanks for recording every detail of practice. The Weekly, Monthly and 30-Patient Perpetual contain 32 pages of data and 160 pages of classified blanks. The 60-Patient Perpetual consists of 256 pages of blanks alone. Each in one wallet-shaped book, bound in flexible leather, with flap and pocket, pencil with rubber and calendar for two years. Price by mail, postpaid, to any address, \$1.25. Thumb-letter index, 25 cents extra. Descriptive circular showing the several styles sent on request. Lea & Febiger, Publishers, Philadelphia and New York.

This visiting-list for 1913 will be as serviceable and satisfactory as those of former years. The text portion has been revised and brought up to date, and contains useful tables of weights, measures and comparative scales, together with valuable information of the nature which the physician frequently has need of at short notice.

A MANUAL OF AUSCULTATION AND PERCUSSION, EMBRACING THE PHYSICAL DIAGNOSIS OF DISEASES OF THE LUNGS AND HEART AND OF THORACIC ANEURYSM AND OF OTHER PARTS. By Austin Flint, M.D., LL.D., Late Professor of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College, etc., New York. Revised by Haven Emerson, A.M., M.D., Associate in Physiology and in Medicine, College of Physicians and Surgeons, Columbia University, New York. 12mo, 361 pages, illustrated. Cloth, \$2 net. Lea & Febiger, Philadelphia and New York, 1912.

The profession will welcome the appearance of a revised edition of this masterpiece. The work has been brought up to date and the present author is confident that this edition will continue to fill the place that was so ably filled when the first edition appeared years ago direct from the hand of the late Professor Flint.

AN INTRODUCTION TO THE STUDY OF INFECTION AND IMMUNITY. Including Serum Therapy, Vaccine Therapy, Chemotherapy and Serum Diagnosis. By Charles E. Simon, M.D., Professor of Clinical Pathology and

Experimental Medicine. College of Physicians and Surgeons, Baltimore. Octavo, 301 pages, illustrated. Cloth, \$3.25 net. Lea & Febiger, Publishers, Philadelphia and New York, 1912.

Immunology is one of the most important developments that have come out of the last quarter century of medical investigation. The ways and means which have been devised within the past twenty-five years for carrying on laboratory work have made it possible to focus the laboratory on problems of diagnosis and treatment to such an extent that a new era in medicine has been thereby ushered in.

This vastly important branch of modern medical endeavor finds exposition in Dr. Simon's book that is both delightful and illuminating.

The author has endeavored to elucidate the principles involved in infection and immunity, and to give such presentation of them as may be of practical use in the serologic laboratory, and also of practical value to the practitioner.

The direct and lucid style goes far toward insuring the popularity of the work among busy practitioners who have not the leisure to acquaint themselves with a terminology such as grows up around a new and more or less involved study. The chapter on anaphylaxis, for instance, is the most interesting presentation of the subject which we have seen; and the same clarity of expression obtains in the other chapters.

A TREATISE ON FRACTURES AND DISLOCATIONS. By Lewis A. Stimson, B.A., M.D., LL.D., Professor of Surgery in Cornell University Medical College, New York. New (seventh) edition, thoroughly revised. Octavo, 930 pages, with 459 engravings and 39 plates. Cloth, \$5 net. Lea & Febiger, Publishers, Philadelphia and New York, 1912.

We have often said that when a work has run through a certain number of editions there is little need of a review; for it may be taken for granted that such a book is thoroughly known and possesses an intrinsic value that makes it certain of welcome.

This is true of the volume before us.

The present edition has received careful and thorough revision, with three new sections on certain fractures of small bones in the hand and foot, while another section is devoted to fractures of the external tuberosity of the femur. Over 100 new illustrations have also been added.

The treatment of old dislocations and the operative treatment of recent fractures have received special emphasis in this edition.

The work has always enjoyed the confidence of the profession, and the present edition will insure it the further confidence of medical practitioners.

SURGERY AND DISEASES OF THE MOUTH AND JAWS. A practical treatise on the surgery and diseases of the mouth and allied structures. By Vilray Papin Blair, A.M., M.D., Professor of Oral Surgery in the Washington University Dental School, and Associate in Surgery in the Washington University Medical School. \$5. Pp. 638. Illustrated. St. Louis, C. V. Mosby Company, 1912.

Because of a peculiar divergency of opinion between those who have laid out paths in medical regions and those who have pioneered in dental fields, a generally acceptable standard of procedure has not been established in the surgical treatment of mouth deformity and disease.

The present volume is an endeavor to assemble, in so far as may be possible, the intrinsic conclusions of the constructive workers in dentistry and medicine.

The author has achieved a work that redounds to his credit and is an accession to the literature on which the professions of medicine and dentistry may both congratulate themselves.

The careful detail given to cases considered is a feature calling for most favorable comment, as well as the thorough review to which English, German and

French literature has been subjected in constructing the work.

The book fills a want which has been felt for long, and its appearance is timely indeed.

TREATISE ON PELLAGRA FOR THE GENERAL PRACTITIONER. By Edward Jenner Wood, S.B., M.D., Chairman of the Pellagra Commission, North Carolina Board of Health, etc. Pp. 377. Illustrated. D. Appleton & Co., New York, 1912.

The author discusses pellagra comprehensively and endeavors to give in this volume an abstract of foreign and domestic literature on the subject.

This work possesses unique value, coming at this time when pellagra is rapidly assuming important proportions in this country. It is still a vexed question, although in some localities its importance is second only to tuberculosis. For a century or more it has been considered one of the great medical problems of Italy, but it has received attention in the United States only within a decade. The traditions of the disease are therefore of great importance in determining the etiology of pellagra, as is clearly demonstrated in the text, and those traditions receive due attention.

In the ten chapters comprising the book are those devoted to History and Geographical Distribution of Pellagra; Theories of Etiology; General Characteristics; Nervous and Mental Changes in Pellagra, Diagnosis, Prognosis, Prophylaxis and Treatment.

COMPLETE ATLAS OF THE WORLD. Containing maps of the United States, its 48 states, its territories and its insular possessions, together with all of the Canadian provinces and every other country in the world. L. L. Poates Publishing Co., New York, 1912. Cloth, \$1.50. Leather, \$2.

This atlas contains the latest maps, showing geographical changes to date, beside valuable data concerning population of the principal cities of the world. Its form and compactness make it of unusual attractiveness.

DISEASES OF THE STOMACH, INTESTINES AND PANCREAS. By Robert Coleman Kemp, M.D., Professor of Gastro-Intestinal Diseases, New York School of Clinical Medicine. Second edition, revised and enlarged. Octavo of 1021 pages, with 388 illustrations. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$6.50 net; Half Morocco, \$8 net.

Several new subjects have been added to the second edition: chapters on Colon Bacillus Infection and Disease of the Pancreas.

The author has given particular attention to the lucid and direct presentation of surgical procedure, and the generous supply of illustrations are a great aid toward that end. Typhoid fever, because of its intestinal complications, is included in this edition, and special consideration is given the reflex gastro-intestinal disturbances emanating from diseases of appendix, gall-bladder, etc. The section on duodenal ulcer has been rewritten.

The physician will find this work of first value.

A TEXT-BOOK OF OBSTETRICS: Including Related Gynecologic Operations. By Barton Cooke Hirst, M.D., Professor of Obstetrics in the University of Pennsylvania. Seventh Revised Edition. Octavo of 1013 pages, with 895 illustrations, 53 of them in color. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$5 net; Half Morocco, \$6.50 net.

The reputation of this work has been long established. The seventh edition has undergone careful review, and the important advances made since the previous edition appeared have been placed in the text.

The diseases of women are considered by the author from the standpoint of obstetrics, and in this particular the work differs from most works on obstetrics, which are content not to go beyond the initial subject.

The section on diseases of the breast has been considerably enlarged. Many new illustrations have been added.

A TEXT-BOOK ON THE PRACTICE OF GYNECOLOGY. For Practitioners and Students. By W. Easterly Ashton, M.D., LL.D., Professor of Gynecology in the Medico-Chirurgical College of Philadelphia. Fifth Edition. Thoroughly Revised. Octavo of 1100 pages, with 1050 original line drawings. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$6.50 net; Half Morocco, \$8 net.

The present volume is the fifth edition to appear in seven years, and contains added illustrations, together with a thorough and painstaking revision of the text so that the work is up to date in every particular.

The chapters on the X-Ray and Blood in Relation to Surgery have been altered considerably and made to conform to recent advances in those subjects.

The diagnosis and treatment of syphilis and the use of salvarsan in syphilis have come in for attention, and there are numerous other alterations and additions which make the whole one of the most satisfactory works on gynecology extant.

The prominent feature of the work is the explicitness found throughout in description of cases and outlining of treatment.

MANUAL OF MEDICINE. By A. S. Woodward, M.D., M.R.C.P., Junior Curator of St. Bartholomew's Hospital Museum. Pp. 469. Oxford University Press. New York, 1912. Cloth, \$3.75.

A most satisfactory volume intended to serve as a reference work for the physician and a companion for the intern.

The subjects are arranged conveniently and the style is concise and clear.

Dr. M. H. Gordon, Assistant Pathologist to St. Bartholomew's Hospital, has contributed a valuable chapter on immunity.

THE BLOOD OF THE FATHERS. A play in four acts. By G. Frank Lydston, M.D. Pp. 241. The Riverton Press, Chicago, 1912. Cloth, \$1.25.

The play deals with the problem of heredity and crime. It is rather too long drawn out, the characters talk too much, and seem to realize that they are supposed to be talking to an audience. Of course there are places where the motif quickens up a bit, but as a whole the play is not a success. It suffers in comparison with the work of the French Brianx, whose plays on hereditary problems enable us to imagine something of how this one might have been written.

MANUAL OF SURGERY. By Alexis Thomson, F.R.C.S. Ed. Professor of Surgery, University of Edinburgh; Surgeon Edinburgh Royal Infirmary, and Alexander Miles, F.R.C.S. Ed. Surgeon Edinburgh Royal Infirmary. Volume II. Regional surgery. Fourth edition revised and enlarged. Illust. 924 pp. Oxford University Press, New York, 1912. \$3.50.

Of course it is not expected that a volume of this size shall be exhaustive, but the work is surprisingly comprehensive, and covers practically the whole field of regional surgery. It contains the latest that science has to say on each given subject and is entirely satisfactory. The liberal supply of illustrations greatly enhances the value of a text which, without illustrations, would still occupy a foremost place in the practical medical literature of contemporary times.

MANUAL OF SURGERY. By Alexis Thomson, F.R.C.S. Ed. Professor of Surgery, University of Edinburgh; Surgeon Edinburgh Royal Infirmary, and Alexander Miles, F.R.C.S. Ed. Surgeon Edinburgh Royal Infirmary. Volume III. Operative surgery. 565 pp. Illust. Oxford University Press, New York, 1912. \$3.50.

This exquisite work will be a delight to the surgeon who requires a terse yet authentic presentation of the various procedures in operative surgery. The 40 chapters in this volume present a wide survey of the surgical field from the most up to date viewpoint; the achievement is a credit to its authors and an acquisition of foremost value to the surgical literature of the present day. The text is greatly illumined by more than

200 illustrations which have been chosen with discretion.

THE PRACTICAL MEDICINE SERIES. Comprising ten volumes on the year's progress in medicine and surgery. Under the general editorial charge of Gustavus P. Head, M.D., and Charles L. Mix, M.D. Volume V. Obstetrics. Edited by Joseph B. De Lee, A.M., M.D., Professor of Obstetrics, Northwestern University Medical School. With the collaboration of H. M. Stowe, M.D. Pp. 229. Chicago, The Year Book Publishers, 1912. The series of ten volumes, \$10. This volume \$1.25.

The volume is divided into numerous subheads under the main headings: Pregnancy, Labor, the Puerperium, and the Newborn.

This issue of the series possesses the merit of interest which is characteristic of the series as a whole.

THE PRACTICAL MEDICINE SERIES. Comprising ten volumes on the year's progress in medicine and surgery. Under the general editorial charge of Gustavus P. Head, M.D., and Charles L. Mix, M.D. Volume VI. General Medicine. Edited by Frank Billings, M.S., M.D. Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago, and J. H. Salisbury, A.M., M.D. Professor of Medicine, Chicago Clinical School. Pp. 350. Chicago, The Year Book Publishers, 1912. The series of ten volumes, \$10. This volume \$1.50.

This issue contains interesting chapters on immunity and vaccine therapy, typhoid fever, pellagra, and syphilis. The main subjects to be found in the volume appear under the following captions: Infectious diseases; diseases of the mouth and esophagus; diseases of the stomach and duodenum; diseases of the intestine; diseases of the liver and diseases of the pancreas.

MAKING GOOD ON PRIVATE DUTY. Practical hints to graduate nurses. By Harriet Camp Lounsbury, R.N. President West Virginia State Nurses' Association. Sanitary School Inspector for Charleston Independent School District. Pp. 208. J. B. Lippincott & Co. Philadelphia and London, 1912. \$1.00 net.

A practical little book which the nurse will find very helpful. The volume contains the results of a large experience, and one is impressed with the intimate tone of the book and the friendly personal approach which the author makes toward her readers.

SURGERY OF THE RECTUM FOR PRACTITIONERS. By Sir Frederick Wallis, M.D., B.C. Cantab., F.R.C.S. Surgeon to Charing Cross Hospital, St. Mark's Hospital, and the Grosvenor Hospital for Women and Children. Pp. 355. Illust. Oxford University Press, New York, 1912. \$5.50.

This edition has been greatly enlarged over the 1906 edition and contains much that is new.

The work aims to present to young surgeons and physicians the diseases of the rectum in intelligible form for practical treatment.

This branch of surgery is beginning to be recognized as being of great importance, and in line with this awakening the present volume will be found to contain matter of superlative value. The author was a master in this particular field and it is largely through his efforts that the importance of this class of diseases was brought to the consideration of the profession at large.

The author died just before the volume before us was published. His demise is a great loss.

CONSUMPTION IN GENERAL PRACTICE. By H. Hyslop Thomson, M.D., D.P.H. Medical Superintendent Liverpool Sanitarium. Pp. 335. Oxford University Press, New York, 1912. Second edition. \$5.50.

This edition has been entirely rewritten and contains the latest methods of diagnosis and treatment of consumption. The object of this edition, like the first, is to provide a practical study of tuberculosis as seen in general practice. The practitioner will find in the work an able and ready ally in managing consumption.

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SYMPOSIUM

THE DEFECTIVE CHILD

The St. Louis Medical Society devoted three evenings during the winter of 1911-1912 to a discussion of the defective child and the means and methods of correcting and preventing such defects. The meetings were open to the public and were productive of a wide-spread interest in the subject, which cannot fail to have its influence in efforts toward enlarging the field of correction of defects as well as to teach laymen some of the principles that govern the control and prevention of physical and mental deficiency. On opening the first meeting the President, Dr. J. H. Amerland, said:

"To-day the study of the conservation of natural resources engages the attention of all students of sociology and political economy. Of all the natural resources the most important to the human race is man himself; and of all the phases of this subject the child of to-day, the adult of tomorrow, should receive our first consideration, and no one is more qualified to deal with this question than the physician.

"For this reason the society has arranged for a series of symposia on the defective child, one of the problems of this question, to which the public are invited that its importance may be brought home to them.

"This is an innovation, but it is necessary that the laity be first enlightened and instructed in this matter that they may lend their support to dealing with this question in a practical and effective manner. The public is, therefore, not only welcome, but it is most desirable that they should attend these meetings."

The program consisted of the following papers, which follow in full:

I.—THE DEAF CHILD

The Deaf Child, Dr. M. A. Goldstein; Demonstration of Cases (by invitation), Mrs. J. T. Moss (Teacher of Lip-Reading); Defects Due to Nasal

Obstruction, Dr. W. E. Sauer; Lantern Demonstration of Cases and Pathological Specimens, Dr. Eugene T. Senseney; Speech Defects, Demonstration, Dr. C. Armin Gundelach; Discussion opened by Mr. Ben Blewett, Superintendent of Instruction, St. Louis Public Schools.

II.—THE MENTALLY DEFECTIVE AND CRIPPLED CHILD

General Consideration and Classification of Mentally Defective Children, Dr. Sidney I. Schwab; The State and the Mentally Deficient Child (by invitation), Mr. Hugh Fullerton (Secretary Juvenile Court of St. Louis); The Relations of the Crippled Child to the Community from an Orthopedic Standpoint, Dr. Nathaniel Allison; Special Schools for Crippled Children, with lantern slides demonstrating children's work (by invitation), Miss Julia Stimson (Administrator of Social Service, St. Louis Children's Hospital); Discussion opened by Mr. Roger Baldwin, Chief Probation Officer, Juvenile Court.

III.—THE BLIND CHILD

Prevention of Blindness, Dr. M. H. Post; Heredity of Blindness, Dr. Clarence Loeb; Training of Blind Children (by invitation), Mr. S. M. Green; Errors of Refraction in School Children, Dr. John Green, Jr.; Discussion opened by Dr. James Stewart, Superintendent Department of Hygiene, St. Louis Public Schools.

THE DEAF CHILD

M. A. GOLDSTEIN, M.D.
ST. LOUIS

The problem of "Child Study" has received so general and constant an impetus from medical, pedagogical, sociological and psychological sources in the past decade that the literature, data and subject-matter resulting from the many energies brought to bear on this question have become so voluminous and replete with theories, suggestions

and plans, that it may now be an exceedingly difficult task to evolve a practical solution out of this scientific chaos.

It is a fact of great significance that the medical fraternity, educators, women's clubs, mother's circles and almost every organization, large and small, which has the interest of the education and development of the growing child at heart, has been seriously occupied with this all-important subject.

A recent writer has aptly said: "Child culture has absorbed society to such a degree that I fear it has lost its dignified, scientific prestige." Another writer states, "What the average child needs nowadays is 'a little wholesome neglect.' He is studied and absorbed and cultivated until he cannot take a long breath and take it naturally."

In our efforts and our overzealous energy to solve this question our American child has unfortunately received an overdose, and, like overdoses in medicine, generally, the result will not prove fatal, and we believe that the intelligent cooperation of physician, teacher and parent will soon lay a healthy foundation on which this vital structure may be carefully and rationally built.

The physician is an important factor in the responsibilities assumed by the community toward the education and training of the deaf child. The teaching of the deaf child along lines of recent research and scientific accuracy is a comparatively new field of work. Parents of children with congenital or acquired deafness have generally but little knowledge concerning schools and teachers for these little unfortunates, and appeal to their family physician for advice. He is perhaps the first to be consulted by the family as to the proper disposal of these defective children. It is surprising then to realize how poorly informed the general practitioner has been in the past in such matters. Let it be said to the credit of our American otologists that they have contributed much toward the edification of the general practitioner in this work. Those who specialize in otology and whose relations to children with defects of speech and hearing are more intimate, are constantly seeking data and information by which the general medical body and the community at large must profit, and we must look especially to their influence for the readjustment of the problems concerned with the training of these children.

Among the responsibilities which must be assumed by us is the introduction of proper measures and bills before local and state boards of health, school boards and legislative bodies; the enactment of reforms which shall have for their purpose the segregation of defective children in the public schools; the systematic examination of all public school children for all defects of sight, speech and hearing; the selection of qualified teachers for such children and the elimination of

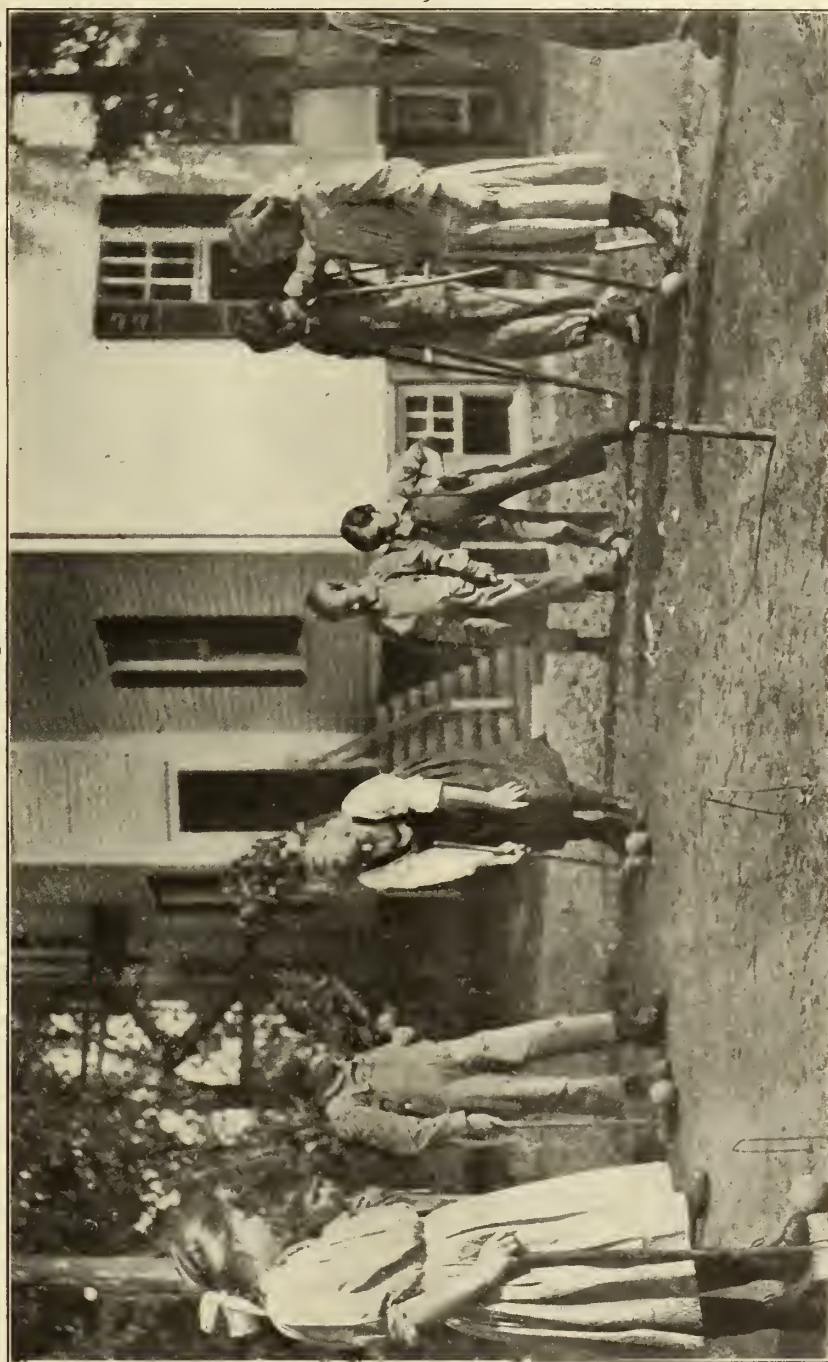
all political influence from such educational reforms.

The otologist here becomes the adviser of the family physician and the counselor of the teacher; the family physician, together with the teacher, instruct the parent; the parent, profiting by these revisions and reforms in the education of defective children, is then placed in a position to act as a more intelligent guide to the child.

Many of the wheels of this intricate and scientific educational machinery have already been set in motion at home and abroad; legislation has been enacted in many communities whereby the larger educational institutions, especially the public schools, are brought under more careful scientific observation and control. Reports are coming in from every quarter where systematic examinations of the organs of sight, speech and hearing of each child are made, where the results of all defects are recorded and where active measures are taken to remedy such defects.

It requires no great depth of thought to observe that when all large communities in this broad land have been enlisted in such a cause, and when each contributes his quota to the general good and welfare, the final outcome will be a surprising decrease in some of the most marked infirmities of child development. There are in the United States over fifteen million school children. Even in the records thus far gathered it was found that 3 per cent. of the children examined had some form of impediment in speech; over 20 per cent. had impaired hearing, and from 40 to 50 per cent. impaired sight. It must be observed that these tests were all made in the simplest manner possible and where defects were found they were mainly of the most apparent form. It may be of interest to note that the more highly intellectual the race and the closer the application to study, the greater the tendency to such defects.

Medical science in its relations to defective children has undergone a tremendous evolution in the last two decades. When the venerable discoverer of adenoid vegetations, Wilhelm Meyer, of Copenhagen, presented his exhaustive thesis before the British Medical Association in 1870, describing the nature and results of adenoid growths, their influence on the physical character of the growing child, their tendency to stunt bodily development, to produce deafness and to impede mental progress, he conferred not only one of the greatest boons to the progress of medical science, but also one of the most valuable contributions to the advancement of the human race. The medical fraternity first received this startling discovery with surprise and incredulity, and it has required more than a quarter of a century to convince not only our profession, but educators, parents and the community at large as to the importance and significance of these observations. To-day we know that our institu-



Playing Croquet.—Courtesy of the New York State Hospital for the Care of Crippled and Deformed Children.

tions for the deaf were at one time filled with a large percentage of children whose original sources of deafness depended on the presence of this lymphoid pathology in the pharyngeal vault.

How large a percentage of defects of speech and hearing is still due to the influence of such a pathology we shall be better enabled to determine when the systematic examination of all school children in the length and breadth of the land has been completed. Much has already been accomplished by the profession to stamp out this prevalent cause of deafness, yet our labors in this direction have but begun.

Let us select at random one of these defective children as he is brought to our notice, following the results of the examination in our public schools. Frequently he will be a poor child of foreign birth, pale and emaciated in body, badly nourished, under-sized, flat-chested and dull of comprehension, all indicative of insufficient care and nourishment, of poor hygienic surroundings, of local pathologic entities and constitutional dyscrasias. He may present evidences of physical malnutrition, expressed by an unusually stupid countenance and bulging eyes, the result of enlarged tonsils or adenoid growths, which prevent proper nasal respiration and produce improper oxygenation and lung expansion. This is a picture of the catarrhal type which eventually produces deafness because of nasal or throat obstruction and is also often the precursor of many forms of speech defects.

This child acquires an education under tremendous difficulties. He cannot hear the directions given in the school-room, the oral recitations of his classmates, or the questions put to him. The frequent reprimands of the teacher are discouraging and oftentimes produce a sensitiveness and fear which may wreck the entire nervous constitution of the little unfortunate; he becomes indifferent to his work; he sees his classmates promoted and loses ambition; his school life, which the healthy child always looks back on as one of the most pleasant reminiscences of his life, becomes to him irksome and a source of constant regret and he often discontinues his scholastic work long before he has acquired an education sufficient to fit him for his strenuous labors as a useful citizen. This is not a pen-picture, but a brief, unvarnished description of a child with defective speech or hearing, selected at random from the 20 to 30 per cent. of our entire enrolment of school children in the United States. We must recognize, then, the importance of systematic examination of all school children, in order that more definite attention may be given to such defects as they are singled out.

The practical application of medical and pedagogical science in its relation to the deaf child is of varying possibilities. The deaf child must be classified according to the degree of deafness which exists. The results of special training and

the development of these several classes of defectives depends for its efficiency on the character of such teaching and the success with which it can be applied.

Classification of the Degrees of Deafness: 1. Total deafness, before speech has been acquired. 2. Total deafness, after speech has been acquired. 3. Pronounced deafness. 4. Slight deafness.

Total deafness before speech has been acquired comprises that class of unfortunates who are congenitally deaf, or who have acquired deafness in early infancy and before they have been taught to speak. These weaklings are not only deaf, but also dumb and form that large group of children whose education is acquired under tremendous difficulties and hardships; for we deal here with pupils whose voice- and speech-producing organs are practically undeveloped. With all the progress which has been made in practical and pedagogical science, the *de l'Épée* system of sign-language and the manual or finger-alphabet is still frequently employed in the training of this class of children, especially in France and England.

In the sub-class of total deafness after speech has been acquired, some of the teaching difficulties are eliminated. In this class the child has acquired speech to a greater or less extent, depending on the age of the child before deafness has developed. One of the serious difficulties, therefore, namely, the teaching of the production of speech, is here eliminated. It is in the disposal of this class of children that grievous errors are frequently committed. Viewing this question not as a teacher of the deaf, but from an experience and association of twenty years with such defectives, from the standpoint of the otologist, it is my humble opinion that this group of pupils should under no circumstances be taught by the sign-language or the manual alphabet. They have acquired speech, a wonderful asset in their future social intercourse, and this should be cultivated and not stunted. All sign-language should be eliminated from their teaching and lip-reading developed as the rational system of instruction possible and practical in this class. I refer to this deliberately and emphatically, for many of the schools for the deaf, both public and private, state and municipal, still employ the sign-language indiscriminately in the teaching of children classified as totally deaf without the acquisition of speech, and those totally deaf after acquiring speech.

There has been an interesting evolution in the teaching of this class of the deaf in America. I quote from the interesting statistics gathered by Wright as to the progress of the oral method and the decline of the manual method. "The first school in the United States where pupils were taught exclusively by means of speech and writing without signs or the manual alphabet, was established in America in 1867. Twenty-six

years later, in 1893, 20 per cent. of the 8,000 pupils in the schools for the deaf in the United States were taught by the pure oral method. In 1908, fifteen years later, there were 12,000 pupils in school and 56.5 per cent. were taught without the use of signs or the manual alphabet. At the same rate of progress another generation should see the practical disappearance of manual methods from the school-room."

This method of instruction has been a bone of contention among teachers of the deaf for a long period and it is time that a unification of opinions on this question, of such vital interest to the future of the individual pupil, should be adopted.

Pronounced deafness is applied to those who possess sufficient function of hearing to distinguish the sounds of the human voice whereby they may be trained by the auricular method to differentiate vowels, consonants, or even some words—classified by the British Royal Commission on the Deaf, as the semi-deaf. A more accurate means of determining the limitations of hearing has been definitely developed in the achievements of Bezold by means of the continuous tone series of tuning-forks. Children who cannot appreciate the sounds of the tuning-fork within the tone limit of the musical scale from *b'* to *g*" have been found incapable of sufficient perception of speech to warrant their successful training by means of the auricular method. This is known as the "word-limit" of the musical scale, as tested by the tuning-fork series. When this relatively small portion of the sound scale is present and the other functions of the child are found to be normally developed, it is reasonable to assume that this child can be taught to speak in the natural way by the auricular hearing method. It is not within the scope of this paper to consider the details of advanced methods in the teaching of the deaf, but I cannot refrain from an honorable mention of our colleagues in otology who have been largely instrumental in this new impetus for the training of the deaf. To V. Urbantschitsch, of Vienna, we must credit the first successful results in the instruction of the deaf by a systematic course of training by the aid of the voice. It was my privilege to be present and to participate in the demonstration of the first results of this system of aural practice in 1893. The first successful results obtained by this system among our American institutions were embodied in my paper presented before the American Academy of Ophthalmology and Otology, with demonstration of a class of sixteen deaf children, showing the marked improvements obtained by this method. Hartmann has devoted much time and attention to the oral and aural methods of instruction of the deaf. He decries the use of the finger alphabet in all cases, and presented at the International Otological Congress in Budapest, a very impressive statement of successful results obtained by the oral method

throughout Germany. Wanner, of the Bezold school, recently gave a convincing demonstration of the value of segregating cases by tuning-fork tests and then successfully teaching them by the auricular method. Here in America many of our progressive teachers of the deaf have taken up this advanced method of training and the results and influence of the good work already obtained is attracting attention and recognition in every section of the land.

Another advance in the education of the deaf which has received active recognition in the past decade and which is applicable not only to the deaf child, who has been taught articulation and speech, but also to the adult who has required a profound incurable impairment of hearing, is lip-reading, or, in its broader appellation, speech-reading.

Lip-reading is not a recently developed aid to the deaf, nor is it a new system of special education; there are authentic records that systematic instruction in this art have been attempted in Europe as early as the sixteenth century. Dr. John Bulwer, in 1648, refers to "that subtle art which may enable one with an observant eye to see what any man speaks by the moving of his lips." In America, John Braidwood instructed in lip-reading in Virginia in 1812. In 1841, Dr. Schwartz, of Dresden, published the first work in Germany relative to lip-reading, a small volume entitled, "Lip-reading as a Substitute for Hearing, and as a Means to Compensate, as far as Possible, the Deaf for the Loss of the Sense of Hearing." The evolution of lip-reading as a systematic training arranged on scientific and phonetic principles is of more recent origin and in its present stage of development offers to the deaf and the partially deaf opportunities for social intercourse which may largely compensate for the impairment or loss of such an important sense organ as the ear.

We have passed the experimental period in the consideration of this valuable system of instruction, and to-day we must consider the length of time of study, the place to acquire this special training, and the exercise of patience, industry and application on the part of both pupil and teacher.

The difficulties of acquiring a practical working knowledge of lip-reading have been very much over-estimated by those unfamiliar with this field, and the good intentions of many a prospective student have thus been discouraged. They have been told that the time of training is interminable and that the actual results are scarcely commensurate with the time, energy and money expended.

Practical experience has proved these hyper-criticisms to be fallacies, and the results, especially in the adult deaf, have been uniformly satisfactory and in many instances brilliant. On one occasion I conversed for several hours with

a young lady visitor and was not aware that she was profoundly deaf, had mastered speech-reading in less than two years and was equally familiar with German, French and English.

The time to begin such a course of instruction is now. Age is no handicap to the acquirement of proficiency in lip-reading if good sight, a fair degree of intelligence and an ordinary vocabulary of spoken language are the assets of the pupil; I have known pupils of fifty to show as satisfactory progress as pupils of twelve.

It is well known that every individual with even moderate impairment of hearing unconsciously watches the lips of the speaker to assist him in the conveyance of a thought expression which reaches the ear more or less imperfectly, but which is intensified in its central interpretation by the aid of the eye. The ear has been so commonly regarded as the only sensory organ through which speech may be conveyed to the brain that few realize that the same result, difficult as it may seem, may be reached by another sensory organ—the eye. Just as the sense of touch may be hyperdeveloped as an accessory sensory organ to the blind to express recorded thought, so may the eye be trained as a valuable substitute to the ear to interpret the spoken word.

Scattered throughout this broad land you will find a trained teacher here and there whose period of practical service in this field qualifies him to assist in this grand cause. It is an interesting observation, however, that no concerted action has, as yet, been attempted whereby the enormous class of the partial deaf and incurable deaf may be offered the practical advantages of systemic training in lip-reading.

The principles of lip-reading may be mastered in comparatively few months, but the practical value of this art will perhaps be appreciated only after proficiency is attained by considerable practice: such proficiency, however, depends on the patience and application of the pupil, rather than on the number of lessons after the principles have been mastered. A pupil of average intelligence and alertness may master the principles of lip-reading in from five to six months, taking two hour-lessons each week; add to this one year of daily practice for accuracy and speed, and the time of pupil-service is completed; in short, a term of from one to two years is required to develop practical independence and experience to qualify the lip-reader to readily carry on an accurate, fluent conversation.

Lip-reading is not only a pedagogical, but essentially also a psychological problem; mind training is as important a factor in the production of the proficient speech-reader as is the accurate mechanical training of the eye to read the lips. The training of the pupil to analyze the various movements of speech as produced by the lips is but one factor in the systematic edu-

cation that develops the expert speech-reader. The language of facial expression, the external physiology of speech, the many positions of the lower jaw, the temperamental differences of speakers, the psychology of language intelligence, the sequence of expressed thought, all are units necessary to the upbuilding of a perfect mastery of speech-reading.

The speech-reader sees more than the form of the lips, the position of the tongue and the size and shape of the aperture of the mouth; he depends much on the expression of the eye, the contraction or elevation of the brow, the movements of the head, the gestures of the hand and body and all other elements that may be used to express spoken thoughts. The pantomime of language is as vital to the speech-reader as is the formation of the lips.

In a recent experiment Gutzmann in his work "Facial Speech-Reading," cites some remarkable instances of faultless speech-reading among his pupils solely from pantomime and facial expression, even when the mouth of the speaker was hidden. If we proceed with this analysis further it would involve us in a discussion of the various methods of training in this field, a subject which is foreign to the present paper; it is simply my desire to point out to the uninitiated the many phases of this problem and the dignified position to which such special training may rise.

Our esteemed confrère, Dr. James Kerr Love, of Glasgow, has opened another avenue in which the mastery of lip-reading may find appreciative recognition—an avenue of public education and charity. During my visit to Glasgow last season, Dr. Love pointed out to me some of the practical opportunities possible to instruction in lip-reading as an aid to public education. He has organized classes for the poor where such instruction is systematically imparted at nominal fees for the course; he has interested the Board of Education of the city of Glasgow, and already the results of this good work are being manifested. The card on opposite page is self-explanatory. This plan is worthy of emulation in every metropolitan city of our great commonwealth.

In all of these forms of deafness the physician should share with the teacher and the parent the responsibilities for the proper training and attention to this class of defective children. The education of the deaf is not a charity, but just as sacred a civic obligation as the education of the normal child, and the physician, especially the otologist, is an influential factor in its proper up-building.

The influence of the physician in the family must be regarded as of vital interest to the welfare of the child and his advice is often given along broader lines than simply for its physical care and mental development. It is the physician who first comes in contact and intelligently recognizes the child's defects and its future depends

SCHOOL BOARD OF GLASGOW.

Continuation Classes--Session 1910-11.

HIGH SCHOOL OF GLASGOW,

ELMBANK STREET.

CLASSES FOR LIP-READING

Will meet in the above School on

MONDAY AND WEDNESDAY EVENINGS.

From 6 to 7 o'clock.

FEE for a Session of Six Months, 10/-

Teachers--Miss JANET F. S. DOUGLAS and
Miss CHRISTINA W. O. MACLEAN.

The instruction will proceed entirely on the Oral Method, and the Classes are intended for Students who, by reason of illness or other cause, have become either wholly or partially deaf after 16 years of age.

Students will be taught to pronounce, singly and in combination, the various elementary sounds, to recognise these by observation of the movements and formation of the lips, and to associate with these observed sounds their written and printed characters. Signs will be wholly avoided. Reading and writing to dictation will form regular class exercises.

The Session will commence on Monday, 12th September, 1910, and, as the number in each class is strictly limited, Students are requested to attend for the purpose of enrolling on Thursday, 8th September, at 7.30 p.m.

J. CLARK.

Clerk to the Board.

SCHOOL BOARD OFFICER, 16 ROYAL EXCHANGE SQUARE,
GLASGOW, August, 1910



From "Jimmy's Fight for Independence," by Douglas C. McMurtrie

largely on the character of advice which the physician offers the family as to its proper disposition. There are some popular fallacies still prevalent, especially in the rural districts, and it is even surprising to hear well-informed men and women of our metropolitan communities refer to the deaf-and-dumb and the deaf-mute in so definite a way as to indicate that the impression is firmly fixed in their minds that deafness of this form must absolutely be associated with absence of voice or speech. Again, the fear of an "operation" is often so intense in the mind of a nervous mother that she will delay for years having her child's adenoids removed or tonsils excised because the doctor, under pressure, has offered the questionable alternative that "the child may outgrow this condition and the adenoids or tonsils may be absorbed when it has reached the age of puberty." Viewed in the light of the pathology and surgery of otolaryngology of to-day, such fallacies and such delays are almost criminal. It is here that the physician must act, not only as the adviser but as the educator of the family, so that every measure for prophylaxis and for the child's physical growth and mental development may be properly employed.

It is our duty to cooperate just as faithfully with the teacher and the parent in the education of the deaf child, as it is with the normal child. I might even insist that our obligation toward the defectives are greater, for our means for their proper care and education are less perfectly and systematically developed, and it is only by intelligent cooperation, diligent examination into every cause and condition associated with these defects, and with scientific and pedagogic evolution and progress, that we hope eventually to bring about a higher standard of efficiency in this important educational field.

What a fertile field and wonderful opportunity for good work, meriting the active and moral support of every otologist and the energetic, patient and skilful direction of every specially qualified teacher and the indorsement of every interested social worker and humanitarian.

3858 Westminster Place.

DEMONSTRATION OF CASE OF DEAFNESS

Mrs. J. T. Moss

ST. LOUIS

There is very little left for me to say in regard to lip reading. It is, as Dr. Goldstein told you, an art that is certainly not a new one. As far back as 1600 we have that art talked and spoken of, and I wish to demonstrate, this evening, a pupil. Miss Zimmermann was under my tuition for two years; she graduated from the Washington University and is now taking a post-graduate course at the Washington University, in architecture. I did not come with any drilled

lesson or sentences for her to read from my lips, but I am going to ask the audience to give me any sentences or questions that you wish me to ask her. She is able to follow a conversation in her school work, in her business occupation, and in social duties, and she will be able to answer any question, I am sure. I take it as my privilege, however, to bar any question you might ask her that is entirely impossible for her to answer.

Following were some of the questions asked by members and visitors in the audience, and Miss Zimmermann's answers:

Q. At what age did you become hard of hearing?

A. I was 19.

Q. Are you able to follow any of the lectures at the University?

A. Not any at all.

Q. How far can you read the lips?

A. Well, with ease, up to about ten or fifteen feet; not quite so easily across a room.

Q. What was the supposed cause of your deafness?

A. I had adenoids. (Scarlet fever, then operated on for adenoids.)

(I want to say that it is now about two years since Miss Zimmermann was under my care, and she is, therefore, not accustomed to reading my lips so rapidly. However, I think Miss Zimmermann could read the lips of any person present. A man with a mustache is very hard for anyone to understand.)

Q. Do you think you would be able to get the word "however"?

A. However.

Q. What difficulty do you encounter in trying to converse with other people rather than myself?

A. Yes, I have difficulty.

Q. Why?

A. Because they do not speak correctly nor enunciate distinctly.

(Miss Zimmermann could not get the word "Spitzenberger" which a doctor in the audience asked, and to which question Mrs. Moss objected. The words "procrastination" and "incomprehensibility" were easy for her to get.)

Mrs. Moss continued: I wish to say that you are not giving her the hardest word when you are giving her the longest word. You are giving her the easiest. The more a lip reader has to look at, the easier it is for her to get it. The less she has to look at the harder it is for her. The words "the," "and," "a" would be much harder for one to master than the words "extraordinary," "extravagant," etc.

Q. Do you find difficulty in modulating your voice in speaking to one next to you or in talking across the room?

A. I cannot tell. I never hear a noise. My voice always sounds the same to me.

Q. Can you read my lips from the side?

A. Oh, yes.

(In practice with the pupils, when they are as far advanced as Miss Zimmerman, they are practiced every view, front view and both side views.)

Q. Are you conscious of the sound of my voice at all?

A. I hear no sound.

(I wish to say that Miss Zimmerman has had excellent training at home in the way of practice. She has a mother who realized long before she took lessons from me that she must look at her when she spoke to her, consequently her mother never yelled or screamed at her. She would go up to her and speak to her quietly; and her mother speaks very distinctly, so that she had excellent home practice, and that means everything. Pupils take lessons, but with no help whatever at home the lessons really do them little good.)

Q. Do you understand German?

A. Well, I have studied it, but I cannot understand it from one's lips.

Q. Do you depend on the vowels or the consonants to govern your sight reading? That is, do you understand the word "read" and "read," in which the vowels are different, but both spelled the same way? Do they look alike?

A. Why, no; certainly not.

Q. Do you hear your own voice?

A. Yes, I hear my own voice a little bit. (Feels it, rather.)

Q. Do you read silently or out loud?

A. Silently.

Q. Some gentleman would like to know if you understand better if I were to hold your hand?

A. No.

Q. Can you follow a performance at a theater?

A. Oh, no.

Q. When you are down stairs, can you feel the vibration of one moving up stairs?

A. No.

Q. Are you able to understand the words when they are sung?

A. I do not think so. I have never tried.

6017 Von Versen Avenue.

DEFECTS CAUSED BY NASAL OBSTRUCTION

WILLIAM E. SAUER, M.D.

ST. LOUIS

We include in this not only obstruction in the nasal cavities, but also in the upper pharynx. The obstructions of the nares are usually caused by hypertrophies, deviations, polypi or other growths; while in the epipharynx, the obstruction is, as a rule, due to hypertrophy of the lymphoid tissue in the vault and on the posterior wall of the pharynx, known as adenoid vegetations or "adenoids."

Before taking up these defects caused by such obstructions, it may be well to mention, briefly, the functions of the nose. Aside from the mucous

membrane of the nose containing the peripheral organs for the sense of smell, and the nares being an entrance and passageway for the air on its course to the lungs, the nose has some other very important functions. The air in its passage through the nares is filtered, warmed and moistened. The filtering of the air is performed by the hair at the entrance, which is covered with an oily secretion, and by the mucous covering the lining membrane of the nose. The importance of this filtration of the air becomes very apparent when we realize that during every hour we breathe at least 500 liters of air, containing from 1,500 to 14,000 micro-organisms. Numerous experiments have proven that in the anterior portion of the nose, bacteria of all kinds are found, while in the posterior half none is found. Some authors even state that the normal nasal secretions are mildly bactericidal.

The experiments of Aschenbrandt and others have proven that regardless of the temperature of the outside air, after passage through the nose it is so modified that when it reaches the lungs it (the temperature) is practically the same as that of the blood, thus avoiding the irritation the cold air would inflict on the delicate lining membrane of the throat and lungs. Experiments have also proven that the air in its passage through the nostrils absorbs from 12 to 18 ounces of liquid moisture during twenty-four hours.

Free nasal breathing also has a very important bearing on the organ of hearing, as the equalization of the atmospheric pressure on the external and internal surfaces of the drum membrane takes place through the Eustachian tubes, hence any interference with nasal respiration causes a disturbance in this regulating mechanism resulting in a derangement of the aural function. The nose also has a vocal function, acting as a resonator for the voice. The character of the voice is greatly influenced by obstructive conditions in the nose and nasopharynx. When the nose becomes obstructed from any cause whether it be adenoids, growths, deformities or inflammatory changes in the nose, the individual is compelled to breathe through the mouth, and as a result the nasal functions are in a measure suspended.

The mouth cannot take up these functions, but can serve only as a passageway for the air. The defects caused by mouth breathing are so far-reaching in their effects that it will be possible for me in the short time at my disposal only to touch briefly on some of the most important. These defects may be classified not with exactness, but for convenience, into anatomic and physiologic. The well-known defect of the countenance, the "adenoid face," with its open mouth, narrow vestibule, collapsed alae, stupid look, is too familiar to need further mention, the high arched narrow palate, the pigeon breast, the dis-

torted teeth, are some of the anatomic defects; while departures from the normal physiologic are the anemia, the deafness, the nervous instability of the confirmed mouth breather.

The most common defect is that of the hearing. During mouth breathing the air, in passing just below the nasopharynx aspirates some of the air in the nasopharynx, Eustachian tube and middle ear. As a result there is a negative pressure in the middle ear cavity, with a forcing inward of the drum membrane by the atmospheric pressure from without, causing a defect in the hearing. The hearing may also be affected as a result of the direct extension of an inflammatory process from the nose or nasopharynx, which may be the result of nasal obstruction. In inflammation of the middle ear followed by suppuration frequently results with dire and permanent effects, destruction of the ossicles, and mastoid involvement. Poor drainage of the tubes on account of obstructions in the nasopharynx or nose, plays a most important part in such complications with their resultant defects. Ear complications are especially common in adenoid cases (about three-fourths of all adenoid cases have ear involvement) and adenoids are by far the most common cause of nasal obstruction in children.

Defective speech is also a very prominent symptom in nasal obstruction, but this subject will be discussed by the next speaker. Then too, the nose being an important resonant chamber, disease and abnormalities thereof militate against a good singing voice, as do improper breathing, the relaxed palate and the crowded nasopharynx. Mouth breathing gives rise to laryngeal defects as manifested in changed timbre of the voice. Hence we have the defective singing voice.

Persistent mouth breathing in a child leads to an entire change in the physiognomy. He is deficient both mentally and physically. There is a dull, stupid expression, thick lips, the upper part of the nose may be broadened, while the nasal orifices are small from a collapse of the alae. The nasal passages are narrow from deviation of the septum and inflammatory changes in the mucous membranes covering the turbinates. The upper jaw becomes deformed, the hard palate narrow and high arched, with the teeth protruding. This deformity is caused in part by the pressure of the muscles of the face, which are on slight tension, pressing against the sides of the jaw, while there is a loss of the force exerted by the tongue on the inside. During normal nasal breathing the tongue rests against the roof of the mouth and against the upper teeth, thereby keeping the balance of the pressure between the tongue and external muscles equal. In mouth breathing the tongue does not come in contact with the upper teeth. The short upper lip associated with this condition is not the cause of mouth breathing, as our patients

inform us, but is a result of mouth breathing. The teeth are often decayed as a result of infection and decomposition of the oral secretions which become dried on the teeth. The lower jaw is drawn back and fails to develop. There are also marked nervous disturbances, with impairment of the mental faculties, a lack of ability to concentrate the mind, to which the term *aproxexia* has been applied. These children are backward and fail to keep up with the children of the same age. Sometimes such children are subjects of "epileptic equivalents" which mothers call teething or worm fits. Frequently they are inveterate bed-wetters. At times they become irritable and incoercible, often morose. Those of us who come in contact with these children have seen striking examples of the influence of nasal obstruction on the nervous system. A few years ago I saw a girl 6 years of age, in a prominent family who so ill-treated her playmates by biting, kicking and scratching them that the parents were compelled to keep her away from other children. This child had large tonsils and adenoids, which were removed. In a few weeks there was an entire change in the behavior of the child, so much so that the neighbors inquired as to what had been done to accomplish so striking a result. The disturbances of the nervous system can be explained in several ways. First, the loss of sleep, as the mouth breathers sleep is frequently disturbed owing to the air hunger. The air instead of being conveyed in a continuous arching stream through the nasopharynx, in a line parallel with the posterior wall of the pharynx, is retarded by striking the hard palate and posterior wall of the pharynx.

This requires a great inspiratory as well as expiratory effort. As a result there is a diminished ventilation of the lungs, with insufficient oxygenation of the blood, and carbon dioxide poisoning. This condition also leads to exciting dreams and to *pavor nocturnus* "night terrors," and as a result these children do not get the requisite amount of sleep for the development of a normal child. The diminished ventilation of the lungs, with negative pressure, leads to a deformity of the chest wall, the so-called pigeon-breast with prominent sternum, and depression on each side. In infants, mouth breathing may be directly dangerous to life. In order to satisfy their air hunger, nourishment is refused, or limited materially, and unless fed with a spoon, inanition and death usually follow. Adenoids are the cause of some laryngospasms, which not infrequently lead to general spasms and death.

Anderson's conclusions, after making extensive experiments on dogs and guinea-pigs, by closing up the nasal orifices, have shown that (1) nasal obstruction leads to death or serious impairment of vitality; (2) that resistance is lowered and predisposes to infection; (3) to local disease of the respiratory tract; (4) to dilatation of the

heart; (5) to changes in the skin and blood; (6) that symptoms resembling asthma and emphysema may be induced in lower animals; (7) that reopening of the nostrils is followed by prompt disappearance of the symptoms.

Mouth breathing in adults, as well as in children, leads to inflammation of the throat and lungs, owing to the failure of arresting bacteria and particles of dust in the inspired air. The blood of the mouth breather is deficient in red corpuscles and hemoglobin; as a result the power of resistance is thereby greatly diminished, as evidenced by the fact that these children are constantly having colds and attacks of bronchitis. Owing to the stagnation of the secretions which occur in the nose of the mouth breather, there is, at times, an irritating discharge which excoriates the skin of the upper lip, resulting in infections and eczematous conditions of the skin about the face and enlargement of the lymph glands at the angle of the jaw. This also accounts for the frequent point of origin of facial erysipelas at the nasal orifice. The same conditions in the nose are productive of certain disturbances of the eye and its appendages.

Humboldt Building.

DEMONSTRATION OF PATIENT

E. T. SENSENEY, M.D.
ST. LOUIS

Dr. Sauer has so thoroughly covered the salient points of nasal obstruction that it only remains for me to point out the various pathologic conditions causing nasal obstruction and to show you some specimens, the causes, and some cases showing the defects caused by nasal obstruction.

Dr. Senseney showed the following lantern slides:

1. Normal nose and pharynx. Lateral view.
2. Normal nose and pharynx. Posterior view.
3. Adenoids *in situ*—Sagittal Section.
4. Same—Posterior Nasal view. *In situ*.
5. Types of Adenoids—Removed.
6. Posterior Hypertrophy of Lower Turbinate.
7. Normal Septum—Cross Section. *In situ*.
8. Deviated Septum—Cross Section; Moderate Deviation—Cross Section. *In situ*.
9. Same. Marked deviation—Cross Section. *In situ*.
10. Same. Marked Deviation with Bony Spur. Cross Section. *In situ*.
11. Polypus Growing from Sphenoid. *In situ*.
12. Polypus Growing from Hiatus Semilunaris. *In situ*.
13. Polypi Growing from Middle Turbinate. *In situ*.
14. Huge Polypi in Middle Meatus. *In situ*.
15. Hypertrophied Tonsils. *In situ*.

Dr. Senseney exhibited the following specimens:

1. Adenoid.
2. Hypertrophied Tonsils.
3. Hypertrophied Tonsil with Papilloma.
4. Lower Turbinate with Post. Hypertrophy.
5. Deviated Septal Cartilage.
6. Polypi.

DEMONSTRATION OF PATIENT 1

This small boy has adenoids. He had been examined because of nasal obstruction and we found the adenoids. He is 8 years of age, came to the Washington Nose and Throat Clinic with this marked obstruction. He sleeps with his mouth open. He snores. Is backward at school and his hearing is very much impaired. There is a broadening of the upper part of the nose, above the alae of the nose, some narrowing of the nares. His glands are enlarged. We feel sure that when the adenoids are removed he will be an entirely different boy.

DEMONSTRATION OF PATIENT 2

This young man was formerly a native of the West Indies. He is 17 years of age and is quite short for his age. About six months ago I operated on him; removed the adenoids and tonsils. In about two months he had gained an inch in height and eleven pounds in weight. Inasmuch as he had these adenoids for so long a time, we do not hope for very much more increase in height and general strength, but we certainly have accomplished a great deal, and hope for some further improvement. This boy has a pronounced sternum and prolapsed lateral walls of the chest—"chicken breast." The latter will be partly remedied.

DISCUSSION

Mr. S. A. Reoser: I would like to ask a question of some one who is able to answer it: I have noticed that those who snore, in a number of cases also have very violent nightmares. I believe, with the mouth in the position of fright in snoring, while in sleep, produces the condition of fright because it is in that position. As a study of expression of the face will show, the expression brings about the feelings that harmonize with the position of the face, so it induces fright and induces the dream. That is the theory I have gotten from that, by a study of those cases.

P. S. Stevenson (Webster School): We have listened to a series of papers this evening on some of the causes of deficiency in children. The St. Louis Medical Society solicits a general discussion of these papers and as a public school man I have been asked to take part in this discussion.

Let me, in the first place, testify to the interest I have felt in following what your specialists have said of the defective child and what they recommend for his improvement or cure. Next to the pleasure to be found in your program is the sense of satisfaction to be derived from seeing so large a number of teachers present, to profit by what these trained men have to tell us and advise us.

Taken together, these thoughtfully conceived papers and the circumstance of the large attendance of public school people, have we not evidence in this happy com-

bination of interests that the physician and the teacher are engaged in a lofty kind of conservation—the conservation of human life? Compared with the effort you and we are making does not conservation, in terms merely of the forest or the mine, seem to take second place?

As examples of how readily the private physician offers the assistance of his skill when he is appealed to in the name of a worthy charity let me mention three cases that have come up in the Webster School during the past year. The physical ailments these boys, whom I am about to mention, suffered from are typical of a large number of cases that arise in the public schools, just as the generosity of the attending physicians is typical, I am sure, of the experience of other principals at such times.

Case Number 1 was a boy who habitually spoke with such a slovenly enunciation that, thinking adenoids alone could be responsible for his condition I took him to a specialist in diseases of the nose and throat. From this physician I learned that the boy's sole trouble was his never having learned to enunciate because his parents had never required him to. The mother had talked "baby" talk to the child until he had passed an age when the parents thought this sort of conversation was cute; then she found herself compelled to continue talking to him in the same kind of gibberish if she was to make him understand her. In course of time he learned to understand the conversation of other adults than his parents, but he could express himself only in the way that years of practice had fastened upon him. This boy was found to be suffering from no physical defect whatever.

The course of treatment prescribed by the doctor was for him to devote half an hour each day under the direction of his mother to reading aloud, with scrupulous regard for the correct sound of every vowel and consonant.

Eddie, boy Number 2, during a period of about a year, was frequently arrested and brought into the Juvenile Court for stealing. Just before he was arrested the last time, but just after he had committed the offense with which he was charged, I took the boy to a doctor for a thorough physical examination. Eddie was found to be suffering from a double hernia. Armed with this knowledge, I promised the Juvenile Court judge to hold myself responsible for his future behavior if he were not sent to the Reform School. An operation was performed upon him that proved entirely successful. His parents were indigent and the surgeon made no charge for his services. Inasmuch as Eddie has not been in trouble with the police for over a year, may not his moral delinquencies be partly accounted for by the fact that, up to the time of the operation, he had, ever since he could remember, been constantly in pain during his waking hours.

The third case is of a boy named Dewey, who, at the age of four had become so pronounced a truant that his mother adopted the extreme measure of chaining him to the floor to keep him at home. Besides truancy one of his most marked characteristics was his tendency to hurt himself in various ways. When he used a pocket knife to sharpen a pencil or whittle a stick he would cut himself; when he ran he fell and got bruised. This boy's adenoids were removed; his enlarged tonsils reduced and his defective eyesight and hearing treated. He received this medical treatment last spring. Since the opening of school last September his attendance has been better than that of the average pupil. Furthermore I have noticed, this school year, a marked reduction in the number of sores and bruises Dewey used to be habitually nursing.

Such cases as I mention are those which the doctor and the teacher will have to correct upon their own initiative. They cannot wait upon the sluggish action of a parent who does not know that his child needs medical attention, however evident the child's necessity

may be to a stranger. The doctor and the teacher have simply to employ to the limit the knowledge and authority they possess. Indeed, as one sees on every hand abuses which only medical skill can correct, one hesitates to say with what authority the doctor will not be clothed by society in another generation.

Dr. James Stewart: I have not very much to say, but I think it might be well to let you know what we try to do in regard to this work on the part of the Board of Education. We have been in the work for some time and we have had a great many cases, especially cases of adenoids and ear defects. It is hard to get the parents to act. I am very glad to note that we have so many people here who might be able to act as missionaries among the homes of these people.

We advise them to call on their family physician for advice and treatment, and if they refuse to act, our school nurse follows up the case and sees if she cannot persuade them to do so. This past week we have had two instances where the people have absolutely refused to have anything done. One case, a child, has been excluded for some time, on account of a suppurative ear trouble and I have reported that case with the expectation of having it brought into the Juvenile Court and having the parents prosecuted; having the child taken away from them and treated.

One case last year was a boy with a suppurative ear trouble and in a serious condition. We reported the case, got after the parents and finally excluded the boy, and the father of the boy came to the office and inquired what he should do. That he has had this boy under treatment, what more could he do? I then asked him where he had been. He replied, to a certain medical institute here in the city, which is not a reputable one. I explained to him, then, that he was not getting the proper treatment for his son from such an institution. The Board of Education has laid down a rule for our department, i. e., we cannot recommend any one special institution or specialist. On the advice of his family physician he went there and thought he was doing the right thing, and said in anger: "You told me to go some place, but you did not tell me where to go. What shall I do?" I then wrote the names of several reputable specialists on little slips of paper and put them into a hat and told him to pick one. In the course of four weeks the child was back to school with a normal ear. It is the parents who do not help.

In another school there was a child suffering from a serious nasal obstruction—the mother came to see me at the school. I told the mother they would have to do something for this child or he would have to go to a special school or remain out of school. The parent answered that her doctor said he did not care to "monkey with the ear," which was a good thing for him to do. But he should have referred the case to some reputable man. I then asked her if she would permit us to send the child to some institution. She replied that she hated the idea of having the child taken from home. I told her the school authorities are doing their duty, the doctors are doing their duty, and the mother, the most concerned and the only one standing in the way of the health of her child. She left with a promise to do something for the child. I want to say that we will again follow this case up in time.

We have a great many of such cases; we just wonder why it is people do not learn. The average individual thinks a child will outlive these defects, such as a suppurative ear. But it is a serious mistake. We want everybody here to-night to make it their duty to try and insist and beg of the parents to do something for the relief of these serious defects.

Dr. Tuttle: I would be the last one to minimize the importance of these operations on the naso-pharynx in children, but it seems to me that in a mixed audience of this kind, that is so closely connected with the education of children, I should utter a note of warning. The public is getting as much educated on the question



Patients in the flower garden. Each patient has his own flower bed and personally cares for it.—Courtesy of New York State Hospital for the Care of Crippled and Deformed Children.

of adenoids as on any other question in connection with medicine. And it is a very common occurrence, these days, for mothers, hearing such talks as you have here to-night, hearing cases reported to them, and reading articles in the newspapers, to bring their child to a specialist, asking for removal of adenoids. There is no use to advise against the operation; the mother goes away and in the course of time gets it into her head again, and goes to another specialist and tells him the same thing, and finally goes to a third specialist and he will take them out. She will force him to do it.

Now, every child has some adenoids. But not every child needs operating on for adenoids.

The point I wish to bring out is this: Every child who has even a slightly enlarged third tonsil does not need an operation. When the adenoids block up the posterior nares they must be operated on. When the adenoids block up the opening in the Eustachian tube they must be operated on. There is no question about these two cases. But very many children with pretty good-sized naso-pharynxes with moderate sized adenoids, where there are no obstructing symptoms, get on very nicely without operation.

Another point I wish to bring out: Little babies have adenoids sometimes. There is getting to be a desire to operate on little babies for adenoids. Some of them need it, but some of them do not. My impression is from a considerable amount of observation of operations on little babies, under two years of age, that there is no need of adenoid operations. You do not get enough out and in a little while they occur again.

Dr. Goldstein: If this evening had accomplished nothing more than to develop an active interest by the local medical profession for this important work, and created a bond for better fellowship for such efforts between the medical profession and that part of the laity especially interested in the educational welfare of defective children. I think those of us who have been interested in the arrangement of this programme, active in its participation and anxious for its success, have been amply rewarded.

Dr. Stewart refers to a very vital question in the disposal of this problem, viz.: how may we convince the average mother of the importance and necessity of giving proper care and attention to the physical defects which have been found in her child, in even the brief examination as conducted under the supervision of the department of hygiene of our public schools. The education of the mother is an evolution just as was the education of the family doctor before he knew what adenoids meant; or as was the education of the ear and throat specialist by Wilhelm Meyer, the Copenhagen physician who first discovered adenoids about thirty years ago. Education, therefore, in the question of determining the cause of these defects of speech and hearing, or of any other physical impairment that makes the status of the defective child, is a remedy. Education of the specialist to disseminate this information among the profession; education of the family doctor to bring this question plainly and comprehensively to the attention of every parent or guardian; education of the parent to do his duty promptly in the matter of arresting all such defects as soon as attention has been called to them.

A previous speaker is of the opinion that the operative spirit in the matter of adenoids and tonsils is too rampant and that frequently operations are undertaken for the removal of adenoids when no adenoids exist. I want to say very frankly that in my own experience I would rather err on the right side than on the wrong side; I would rather operate on one or more cases in the large array of cases, that come to the busy specialist, and find that there has been but little adenoid tissue present to justify the operation, than to overlook one case in which adenoids have been allowed to remain in the naso-pharynx and have gone on from year to year to impair the physical well-being of that child.

A comprehensive understanding of the necessities required in the care of defective children, the elimination of these defects when found should be carefully developed by every doctor, parent and teacher. It required a quarter of a century for Dr. Wilhelm Meyer to educate the medical profession to a prompt recognition and to the most definite means of disposal of adenoid growths, and it will require an almost equal period before the medical profession can educate the laity to a recognition of the seriousness and importance of this and similar problems.

Progress in this work, however, is slow, but it is the natural evolution, and the defective child will soon receive more careful consideration and all energies will be directed toward the improvement of these conditions. This is the psychological period for the expenditure of time, energy, brains and money to find a practical solution to this vital question.

Dr. Sauer, in closing: I merely want to say I agree with what Dr. Goldstein has said. Every one who has seen a large number of these cases, has seen striking results following the removal of adenoids, even in cases where the growth was not large.

Dr. Senseney: I heartily indorse what Drs. Sauer and Goldstein have said. Furthermore, the occasional recurrence of adenoids is never an argument against their removal. If they recur they should be removed again.

Dr. Ewing: I would like to ask you, Dr. Senseney, if you have noticed a very general occurrence simultaneously of the adenoids and the chronically hypertrophied tonsil?

Dr. Senseney: Very frequently both are hypertrophied but this is not necessarily the case.

SPEECH DEFECTS

C. ARMIN GUNDELACH, M.D.

ST. LOUIS

The request was made that these papers be comparatively free from medical nomenclature so that they might not become a bore to the teachers and lay listeners that it was hoped would attend this and the following meetings that shall go to make up the symposium on "The Defective Child." This request together with the fact that the papers are to be general and couched in popular form has led me to make mine quite brief. I shall consider only those conditions that are familiar to all, and to mention only those facts which have been accepted by most authorities.

Under the subject of speech defects we might consider all those conditions that influence as Preyer says, "the mastering of speech," which includes on the one hand the understanding of that which is spoken and on the other that which is thought. Its greatest accomplishment then results in the production of intelligible, coherent speech.

All that interferes with the perception of articulate words must therefore be considered under a disturbance of speech.

From a physiological point of view we may divide all pure speech defects into three classes:

In the first class come those defects due to faulty hearing of which Dr. Goldstein and Dr. W. E. Sauer have spoken (external, middle ear, or nerve to auditory center, deafness).

In the second would be those of central origin, either sensory or motor or those as a result of a combination of the two. I leave all, with the exception of the functional forms of this class, to the neurologist.

And in the third class are those disturbances which we might term defects due to faulty articulation, be it due to involvement of the nerves or to organic defects of the articulating apparatus.

I shall merely mention such conditions as loss of the voice in hysterical individuals, and partial or total loss of speech due to a spasticity of the muscles from various causes, so that I may hurry to the more important defects that I have been asked to lay greatest weight on, namely, stammering and stuttering.

I will consider stammering first. The question of nomenclature arises at once. Are we to adopt the European classifications or shall we follow the American form? On the continent stammering and stuttering are classed as two distinct affections. Americans use the two names interchangeably. The American equivalent of stammering would be lispings; it is, however, probably better to reserve the term lispings for a certain form of stammering.

Stammering, then, may be defined as that affection of the speech organs where the sounds are incorrect—where articulation for some reason or other is faulty. This imperfect speech may result from functional causes or be the result of organic lesions. The functional forms are those in which the development of speech remains stationary early in life and where no organic cause can be ascertained. The organic forms are those where abnormalities of lips, tongue, teeth, jaws, of hard or soft palate, of the nasal cavities, or of the throat, exist. Conditions like harelip, tongue-tie (though this is not nearly as frequent a cause as it is often thought to be), an abnormally large or thick tongue, or anomalies of the teeth, the latter being usually the result of loss, or of faulty position from such a cause as adenoid vegetations. All are familiar with the little grandmother who has lost her front teeth and cannot produce the sound S, because the tongue has been robbed of its point of resistance. When the upper teeth are lost the T's and the D's suffer; if the lower are gone, the S's; if there are open spaces at the side from the loss of teeth the air escapes there and we get a L-ch sound instead of an S sound; these forms are popularly called lispings.

If the upper teeth are too long the lower lip may be relatively too short, and the lip sounds m, b and p will suffer.

Perhaps it would not be amiss to briefly analyze the sounds that go to make up our articulate speech. There are, as we all know, the vowel sounds and the consonants, diphthongs being combinations of two vowels to produce one sound. The vowels we might say are vocal tones, as they are produced by the expired air vibrating the

vocal cords in a cavity of a certain fixed position. The tone is physically not a perfect one, but consists of a fundamental tone plus over tones that have a certain fixed ratio to the former. The consonants on the other hand may be said to be noises, that is they are sounds produced by escaping air through certain fixed positions, or by forcing open certain fixed positions of the articulating apparatus. The nose acts as the resonating board in the human being, and is closed by the soft palate during all speech except in the pronunciation of M, N and NG.

Defects of the hard or soft palate prevent this closure and influence all sounds except the three nasal sounds (*Rhinolalia aperta*). Insufficient closure is also brought about by paralysis of the soft palate as in diphtheria, or by tumors such as large adenoids. Growths that prevent the proper ventilation of the nose will deprive the vowels of their resonance (*Rhinolalia clausa*).

Deformities in the larynx that cause stammering are exceedingly rare. (Swellings, constrictions or disease here may, however, be the cause of poor speech in adults.)

The rôle that hearing may play, especially before the age of 10 in the causation of stammering has already been brought to your attention.

As to the cause of stammering it may, therefore, be said in some cases to have very definite organic causes, that is, be the result of organic abnormalities. And in these cases the cause should of course be corrected as early as possible for fear that the patient will develop a habit in his faulty pronunciation.

There are, however, cases of stammering where the abnormalities are not pronounced enough to explain the occurrence of the defect, but where the abnormalities may be considered contributing causes. In these cases the stammering is caused by the awkwardness of the organs of speech or may be said to rest on a sensory basis in so far as it is the outcome of diminished attention on the part of the patient to others as well as to his own articulate speech.

As to the different forms of and substitutions that come under what we term general or partial stammering, I believe them of little interest to this gathering. The primary object of these papers is to call the attention of the physicians and public to the importance of these defects so that the proper training may be instituted early enough to save the child from that mental depression and reservedness that so retards its mental activities.

In leaving the subject of stammering it might be well to advise against the use of "baby-talk" of well-meaning parents on the pretense that their children understand them better. This form of cooing is no more soothing than that of perfectly enunciated words which gives the child a chance to develop a correct pronunciation.

In stuttering we have an entirely different affection to deal with. Whereas in stammering the patient is unable to form the sounds properly, perhaps because he has some abnormality of the speech organs or perhaps because he has not memorized their proper position sufficiently well; in stuttering on the other hand, he is cognizant of their proper position and the sound required, but is unable to produce this sound. This inability to produce the required sound and proceed with the next succeeding sound is caused by a spasm of the organs of speech while in the position of the sounds that have become difficult.

The stammerer, when he comes to a difficult sound, will either substitute another for it or will leave it out entirely, while one that stutters will dwell on that sound longer than normal, and by repeated muscular attempts try to produce it perfectly; the explosive form of speech that is familiar to all of us results.

Though stuttering was known to antiquity, its true cause has not been definitely settled. All authors are agreed, however, that it rests on an inherited or acquired nervous instability. Such acquired instability is often the result of a serious illness, sudden fright, deep sorrow; in fact, anything that would be a drain on the nervous system. Alcoholism in the parents is widely considered a cause of lessened stability in the offspring. Faulty habits, such as masturbation, may augment the original weakness. The so-called "temperament" of certain high strung individuals may be a contributing cause.

The beginning is almost always a gradual one and comes as a rule in early childhood. Some children stutter even from the beginning. Other children may begin to speak rather late and then will lisp, and this condition, which may be considered the expression of a slight motor defect, may lead to stuttering in a nervous, high strung child. The parents then scold the children, perhaps make them practice difficult words, and so usually make the condition worse.

The condition often shows itself first, or if already existing, becomes worse, at the time the child enters school, for then the demands on the vocal organs of the little one are greatly increased. And the fact that often the children are quite uncertain of their own answers when quizzed by the teachers may contribute.

The most noticeable and important symptom is the interrupted speech, usually at the beginning of a word, more rarely at the beginning of a syllable, or in the middle of a word. The stumbling block is always a consonant, a vowel never being stuttered.

Normally in speaking there is a short inspiration followed by a long, slow expiration; in the stutterer there are choppy incoordinate movements of the respiratory, vocal and articulating musculature. An abnormally long duration of consonant sound production can be detected on

the muscles of speech themselves by an increased resistance at the so-called points of articulation, lips, teeth, gums, and vocal cords, or by a repetition of the sounds through spasm of the muscles.

Besides the incoordinate articulate movements there are often accessory movements of various parts of the body: nodding of the head, grimaces, twitching of the eyelids, or movements of the hands, arms or legs. A fear of speaking, especially with strangers, is one psychic disturbance almost sure to develop. To avoid these difficulties the patients are silent, or change the diction of their sentences. Many patients are kept in a bad humor constantly as a result. Others become very retiring, or of a self-disrespecting disposition.

There are some symptoms that I will omit because of lack of time, and some I have omitted because I think you will be able to observe them for yourselves in the patient that I expect to present in just a few minutes.

As to the significance and explanation of the various symptoms there is as yet great difference of opinion, the two at greatest variance being those of Denhart and Gutzmann. Denhart thinks that all stuttering is of psychic origin, and that all incoordinate movements of the organs of speech are volitional and executed to overcome a supposedly existing difficulty. Gutzmann, on the other hand, attaches little weight to the psychic phase and assumes a certain weakness of brain function that is necessary for speech and consequently thinks all false movements involuntary.

A combined view as taken by Liebmann will probably fit most cases best. Liebmann considers the psychic influences secondary and the result of repeated unsuccessful attempts at speech. There are, in fact, according to Liebmann, voluntary as well as involuntary movements. The voluntary accessory movements predominating in the severe cases of stuttering and the incoordinate in the incipient cases. Both kinds, voluntary as well as involuntary, affect both speech and respiratory musculature, the respiratory changes, however, always being secondary.

The real seat of the trouble, according to Liebmann, rests on a weakness of the speech centers, caused by one of the above-mentioned diseases, together with a nervous disposition, which results in involuntary incoordinate movements of the speech organs with a consequent involuntary prolongation of the consonants. All other symptoms, voluntary, involuntary and psychic would then be secondary.

The diagnosis of stuttering is usually exceedingly easy. It must, however, be differentiated from choreic disturbances of speech, from spastic forms, and from those cases of blustering speech where the articulating apparatus cannot keep up

with the mind. Also from lack of will power, from stammering in some cases, and lastly from cases of simulation.

What are the prospects of a stutterer being cured and what may influence them?

Unfavorable influences would be organic diseases of the nervous system, great nervousness, great business cares, worry, poverty, poor hygienic surroundings, or a sensitive nature. Where the affection has lasted a long time, or in those cases that stutter when singing, a cure may be difficult. Many of the above conditions can be remedied and thus the outlook brightened.

To prevent stuttering the tendency must be detected very early, the patient then removed from detrimental influences and spoken to in correct, simple language, no sentences with subordinate clauses, no threats, or pictures of a dark future, but patient encouragement offered.

As to the question, can those who have already developed into stutterers be helped? YES. All can be improved, and the great majority entirely cured by any one of several good methods, there being almost as many good methods as there are good teachers.

Most of those depending on shouting, stamping of the feet and the like, have fallen into disrepute and are practiced mostly by charlatans.

The limited time will not allow of consideration of the many forms of treatment, but one method will be briefly indicated in presenting the case.

CASE: The patient is a boy 9 years old, physically and mentally fairly well developed. Of the early history of his affection I have been unable to learn anything, as the mother is confined to her bed at present. Whether the patient stammered first or stuttered first cannot be definitely answered therefore, but in all probability the stammering put in its appearance first.

Of the diseases that the boy has had and which may have contributed to his affection there are none more serious than measles. He also having had whooping-cough, mumps, bronchitis and chicken-pox.

Of psychic influences that may be said to play a rôle in this case are recorded, an attitude of parental distrust of one another as also of the patient, and the fact that the patient has suffered the loss of two brothers and two sisters, only one, however, in the time within his recollection. That the mental state of fear, however, plays a great rôle here, I have not the slightest doubt, for the patient tells me himself that he has a mean father, who has deserted his mother on the sick bed. He has notwithstanding sufficient parental love to wish that his father will return. In fact, he is bright enough to know that everybody hopes his father will return, as it would be best for the family.

Besides the domestic unrest of the family, poor hygienic surroundings and poverty, I learn from

the social service workers, influence the tone of the boy's home life.

Such interesting facts as to whether his speech became worse on entering school, whether or not it is better at home or abroad, I have not been able to ascertain.

Of the objective symptoms the following are the more pronounced ones: stammering of the letters f, l, c, k, g, th, and some compound consonants like q and x. Substitution of the letters v for f, t or d for the letters th, and d for g. He omits h, z and l when they come at the beginning of a word. He is what might be called a vowel stutterer, as he stutters the h, which always precedes a vowel, but is never heard. His getting into a daze with each effort at thinking of something out of the ordinary is quite evident. His involuntary movements to overcome the difficulty of getting started in his speech are noticeable. He often substitutes me for I (which may be considered a change of diction).

Accessory movements are also noticeable when he becomes excited and finds that the articulating apparatus does not keep up with his mental thoughts.

His stammering, which we may say is partly due to lessened attention, not only to his own speech, but to that of others, most certainly rests on an organic basis. What condition the patient's teeth were in before his second teeth began to appear is hard to say, but at present he presents abnormalities that account for his inability to pronounce the letters f, th, and l properly. The teeth will be found to deprive the tongue of its point of resistance and also to interfere with a perfect s, though he has now learned to pronounce that sound fairly well.

Besides these abnormalities he talks with a nasal twang, which is the result of an injury to the nose. The nose is totally occluded on both sides so that ventilation of the nose is imperfect, and all his vowels have a dead sound. The three nasal sounds m, n and ng, suffer also as a result of the nasal condition, especially when the n is in the middle of a word.

As to the prospects of correcting this youngster's defects, I would say they are very fair. The course to be followed here would in brief be about as follows: First, gain the patient's confidence, for he is fearful of every one; he has on each occasion of being entered in the hospital run away. Then teach him to be at perfect ease, interest him so that he will sit perfectly quiet and pay attention to that which his teacher says. After gaining his confidence and putting him at ease he must be taught to *omit all voluntary efforts and to speak slowly and quietly*. These two rules are the most important and only rules necessary. He should be shown pictures of the tongue in the proper position of the sounds that he pronounces incorrectly and by practicing the respective sounds be taught to bring his tongue

into the proper position. Acquiring the proper tongue position may be hastened and helped by the use of dental plates, probes, etc.

To overcome the stuttering he may be made to dwell on the vowels, so bringing the ratio of duration of the vowels beyond that of the consonants. Gradually this ratio is reduced to the normal one. This is done first while the patient reads, then he is taught to repeat related simple stories, and lastly to practice free spontaneous speech. He must be taught to think about what he is going to say and not about how he is going to say it.

The abnormalities of the nose and throat I expect to correct surgically. The condition of the teeth should of course be corrected at the most opportune time.

401 Lister Building.

GENERAL CONSIDERATION AND CLASSIFICATION OF THE MENTALLY DEFECTIVE CHILD

SIDNEY I. SCHWAB, M.D.

ST. LOUIS

1. Introduction.
2. Historical.
3. Etiological.
4. Classification.
5. Methods.
6. Relation of Criminality.

INTRODUCTION

It is conceivable that in some distant age there will be worked out certain standards of measurement by which civilizations at different epochs may be judged and graded. It would not be surprising to know that an important element of such a standard should be the amount and quality of the care given by a state to its citizens who are mentally and physically defective. It would be, perhaps, a measure based on some altruistic conception of society which would be so fundamental and vital as to be permanent. It is a curious commentary on this fact that the care of the defective child exercised by the state at the present time bears but an indifferent ratio to the degree of attention directed toward the welfare of its normal citizens.

We are dealing with an interesting tendency among human beings, which has its expression in neglect and indifference to those among them who are essentially different in a mental way from their normal. The idiot and the imbecile in the history of the human race have been the victims of this indifference and have been set aside as a heritage of neglect which each succeeding generation has, apparently, been unwilling to shoulder. To a certain degree, the backward child has shared the fate of the insane. Both in many respects are due to similar causes, and both to the

same extent may be regarded as victims of civilization's own advance; that is, a certain proportion of the mentally deficient may be regarded as victims of the stress of civilization's own effort at advancement and are products and factors artificial, and, apparently, useless, which have become ingrafted on the race as it progresses toward more ideal conditions.

HISTORICAL

It is an interesting fact that the mentally defective child—and this applies to some extent to the physically defective child—receives but scant attention in the record of medical progress, as is evidenced by the contributions of medical writers throughout the centuries. In looking over the history of medicine from recorded times, one is struck with the absence of comment on the mentally defective child, and one wonders what became of him in the past ages, when his presence should certainly in some way or another have made itself felt. Hippocrates speaks of epilepsy and has given a very wonderful description of an epileptic attack, and he must surely have seen one of the consequences of such disease in the mentally defective child, but yet no particular mention is made of it. Somewhat later we find considerable attention given to the description of Cretins and a clinical description of idiocy and imbecility of the Cretins type are met with frequently in the literature, particularly in the Swiss literature, especially by Felix Plater. It is not until we reach the nineteenth century, and especially in the latter half of the nineteenth century, that the defective child receives adequate attention, and in the years between 1830 and 1848-50 there arose all over Europe (England, France) and America an impetus toward the recognition and the study of the mentally defective child. Many reasons have been given for the neglect so much in evidence in the early centuries of the Christian era, and one harks back to some of the old customs and laws prevalent in the early Roman, Hebrew and Greek civilization. One thinks of the old custom of the Spartans, by which a physically and mentally defective child was left to starve and die on the Taygetos. The reason for the fate thus apportioned out to them was that, being defective children, they would necessarily be defective adults, and thus deficient and useless citizens. In the old Roman times the father of a mentally defective child was not held by law to be responsible for his upbringing and he could abandon him to whatever fate lay in wait. As we approach the middle ages, one reason for the absence of emphasis on the defective child lies in the fact that infant mortality in general must have been very high, and the mentally defective child naturally, owing to his lessened power of resistance, would be the first to fall victim to whatever diseases were prevalent. Another reason, perhaps, lies in the fact that the



Baseball Team.—The Widener Memorial Industrial Training School for Crippled Children, Philadelphia.

city dwellers were in a comparative minority and in the scattered fields and small towns and groups of houses constituting the extraurban life at that time the backward child was too far removed from centers of civilization to be noted by those whose writings have come down to us. There were no places in which such children could be gathered, they were scattered as unnoticed units throughout a huge expanse of territory. A writer on this subject has likewise called attention to the fact that inasmuch as the standard of education during the middle ages was very low, and as so large a percentage of normal individuals could neither read nor write, nor had any interest or claim to anything outside of a bare existence, the delinquent child was really intellectually not so far removed from the normal as to create much interest.

And still all these considerations do not explain altogether what the fate of such a child was. It is probable that a large proportion of them died from pure neglect, a large proportion succumbed to epidemics prevalent in Europe so frequently, a certain proportion of the more physically vigorous became beggars, or were driven away from home and wandered into the woods and fields and became more or less associated with bands of roving soldiers—in fact, would frequently live close to the earth, perhaps protected by animals, to which they became very closely related; in fact, some of the superstitions of the middle ages are based without question on the idiotic or imbecile child, wandering in groups with herds of wolves and other animals in the woods. An interesting feature of the fate of the defective child in the renaissance was the prevalence of what we would now call the high-grade imbecile among the hangers-on of the courts—the court-jester is frequently an imbecile of a rather high type, in whom one especial talent somewhat characteristic of imbecility becomes unduly developed. A perusal of the literature and a study of the portraits of some of the more famous court jesters suggests that this was one activity to which a proportion of the imbeciles became attached.

In 1847, Dr. Andrew Reed, near London, opened the first English institution for idiots. In 1846, Dr. Howe, in Massachusetts, brought together a commission for the study of the question of idiocy, and two years afterward the first American institution was established. In 1855, Bost established the first institution in France, and in 1834, Germany, at E. Isenach, erected a building devoted to the education of feeble-minded children. Since that time there has been an unceasing effort directed towards the study, the causation, the prevention and the treatment of the backward child, until now the subject has grown to large proportions, so much so that it has its own literature, its own journals, its own

societies and an increasing group of well-trained men and women devoted to the study and other aspects of the question.

ETIOLOGICAL

In the question of the causation of idiocy and imbecility, or, let us say, the mentally defective child, there are so many confusing factors that it is very difficult before a general audience such as this to state categorically just what principles were at work. The layman, unfortunately, assumes a medical statement to be absolutely true, or absolutely untrue, while we physicians realize that the absolute truth of a medical conclusion is yet an impossibility. In looking over the history of idiocy and imbecility, we are struck with this fact: That the two most important factors in the causation of mental deficiency in children—alcohol and syphilis—did not appear in Europe and reach their later enormous developments until about the fifteenth century. Syphilis apparently, according to our present-day notions, was introduced in Europe about the end of the fifteenth century, imported from America by sailors under Columbus. Alcoholism did not become wide-spread among all classes of people in its concentrated form until the eighteenth century, or thereabouts, so, perhaps, from an etiological point of view these causative factors really account for the lessened number of mentally defective children before this time. The etiological factors can be divided into three classes: First, hereditary; second, intra-uterine; third, extra-uterine.

The most important hereditary factors are the histories of alcoholism, or syphilis, in the parents of the defective child. We are in possession of statistics on this subject, but they differ extraordinarily. For example, in one group of statistics in 246 cases of idiocy, seventy-six were found to give a positive Wassermann reaction in the blood. In another series of 216 cases only thirteen showed a positive reaction; in 200 other cases only three. There are no statistics at present available in regard to the examination of the blood of the parents of defective children for evidence of syphilis. In regard to alcoholism there seems to be less doubt. In Bourneville's statistics of 1,000 cases, 620 showed alcoholic excess in one or both parents. This probably is a very much exaggerated proportion, but it is undoubtedly true that the parents of quite a proportion of the defective children would be considered alcoholics—perhaps, a fair average would be about 20 per cent.

The other factors of hereditary nature are the existence of degenerative diseases of the nervous system in the parents, or relatives, particularly the occurrence of epilepsy and degeneracy forms of insanity and other evidences which suggest a parental stock showing a tendency toward nervous and mental degeneracy and extinction.

It is very interesting to note that Krapelin and Plaut have carefully studied the histories of twenty-nine families of drinkers. It is surprising to see the infant mortality in this group—32 per cent. of the children in these families died in their first year of life, 10 per cent. later, and only 103 were alive at the time of the investigation. Of these, ninety-eight were personally examined; 35 per cent. were found to be nervous and psychopathic, two, and probably six, that is, 8 per cent., were epileptics, and 15 per cent. were either idiots or imbeciles. Laying aside for the moment the resources of the age and simple consideration in a study of this kind, one is struck with the fundamental proof that alcoholism on the part of the parents is a very important etiological factor in the production of mental deficiency.

Of the intra-uterine, or congenital causes we know considerably less, but it is conceivable that all sorts of injuries and infections on the part of the mother, and other causes of which we know less, might be important elements in the causation of brain defects, or damages, which later would produce defective children in a mental way. Among the prominent causes are injuries received during labor, prolonged difficulty and insufficient aid, which factors must be taken into consideration. Injuries by forceps were formerly supposed to be a very important factor in the causation of idiocy and imbecility. There are all sorts of statistic conclusions on this point. Weygandt investigated carefully the history of 1,100 cases of idiocy and imbecility and epilepsy, in only seventy-eight of these was there a history of difficult labor. In forty-seven cases of difficult labor there were only nine with infant cerebral palsy and epilepsy, and among these only three could be found in which difficult labor was the only etiological factor.

Therefore, I think it is reasonable to conclude that congenital, intra-uterine trauma and difficult labor are only of the less important factors of causation in this connection.

Of the extra-uterine causes, chiefly may be mentioned trauma of the head particularly and a host of acute infectious diseases which attack the brain, or meninges, forms of meningitis, or meningitic complications which produce defects of an anatomical nature in the brain itself, or very often a later infection in a previously normal child.

CLASSIFICATION

There have been many efforts made to classify the mentally defective child, and all of them have been subject to endless criticism. Classification at best is only of temporary importance and only serves to group in our minds certain similar types. You will find in the text-books very fine descriptions of idiocy, imbecility, backwardness, deficiency, various kinds of deficiency,

like epileptic imbecility, hemiplegic imbecility, etc. I think for our purpose, if we divide the mentally defective children into three classes, we will get, perhaps, a fairly just conception of the whole subject. We would find to be in one class the idiot of all types and all forms, meaning by the term such a child whose mentality is insufficient for any educational attempts. Such children never learn to walk or talk; they practically are useless and absolutely helpless units in civilization. As soon as an idiot can be taught to talk and understand, that moment he would graduate from the idiot class into the one next above, to which the term imbecile may be given.

Imbecility may be defined as that degree of lessened intelligence which can be educated to some approach to the normal, and this approach may be from a very slight to almost a normal standard. Now, in the classes of imbeciles we must sharply distinguish two classes—one a destructive and antisocial imbecile, the other a non-destructive, or social imbecile. The third class we might use to simply call a backward child, meaning by that simply such a child as not possessing quite normal mental intelligence and initiative effort. Such a child is capable, through educational methods, to become practically normal. Before closing the subject of classification, it is interesting to mention the effort that has been made by Binet and Simon, an effort towards the establishment of definite tests for the classification of the grade of intelligence in children. These investigators have devised an average set of tests for children from the ages of 3 to 13 years, and each child is required to meet the test at his age, or he is classified below it, or where he may belong. While these tests are not absolute proof of a child's mental deficiency, yet it must be admitted that it is an attempt towards a better system of classification and more definite knowledge of the status of the deficient child.

METHODS

First—Prophylaxis.

Second—Special Schools as Part of the Public School System.

Third—Institutions for Idiots and Imbeciles.

Fourth—Colonies.

Fifth—Individual Effort.

In so short a paper as this only a few words can be said in regard to the preventative measures which might be used to modify, or cause to disappear, some of the factors having to do with the causation of defective children. It can easily be seen that most of our efforts must be directed along the lines of prophylaxis: Such methods as would limit the amount of alcoholism, that would prevent the marriage of the physically and morally unfit, that would lessen the destructive effect of syphilis on the individual and his descendants, such measures as these would, after a few generations, no doubt show their effect in the lessened

number of mentally defective children. In some such a general way as this prophylaxis measures would have to be carried out.

For the present we have such lines of activity which have shown a certain amount of adequacy in dealing with the problem as it exists. Briefly, they are the organization and development of special schools, generally as a part of the public school system, for the instruction of the mentally backward children. Institutions for the segregation of the idiot class and for the instruction of such of them as are capable of rising out of it. Such institutions should be controlled by the state and should be allowed to develop as the need demands. Naturally, privately endowed schools for those who can afford to pay should receive the greatest amount of encouragement, for in them frequently there is, on account of the small number, greater opportunities for the development of individual methods of instruction.

Then there is the idea of colonies, generally located in the country, in which groups of imbecile individuals can be gathered, there to lead a more or less communal life, where their individual mental and physical defects shall not be brought into contact with the absolutely normal.

And, lastly, there comes the individual effort directed to the individual case. Particularly would this be effective in that class of imbeciles in which criminal and antisocial tendencies are mostly in evidence. The Juvenile Court, with its various officers, performs a most important service in reaching that type of mentally defective child which fills in the gap between the purely mentally deficient and the beginning criminal.

However inadequate such a general scheme as this would seem, it yet points out, perhaps, the increasing interest which society feels for those of its members who are mentally deficient.

Humboldt Building.

THE RELATION OF THE CRIPPLED CHILD TO THE COMMUNITY FROM AN ORTHOPEDIC STANDPOINT

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Lange has said that it must be our constant endeavor to cure the cripple and place him among the normal members of the community. This brief statement tells the object and end of orthopedic surgery, which is a special work and has for its aim the rehabilitation of the cripple. It is a young department of general surgery and requires particular training and interest. Orthopedic surgery may be said more especially to seek as near an approach to the normal as the physical condition of the crippled child will permit. The surgical interest aroused by the problems which the crippled child presents is of the

most absorbing nature, and surgery has advanced through the years to well-established rules governing the treatment of these cases in general. Many conditions which were deemed hopeless fifty years ago are now recognized as being entirely curable. Only of late, however, have other aspects and wider views been brought home to the orthopedic surgeon.

The physical side of the problem is, of course, the urgent side, as here are involved the distressing circumstances of pain and physical suffering. Perhaps the medical side justly makes its far-reaching appeal in advance of all other considerations, for we must have hospitals and clinics, both well supported and well managed, in order that we may accomplish the first step in the treatment of the crippled child. Everyone realizes the strength of the appeal made by the crippled child for physical aid.

We all carry the picture of "Smiling Joe" in our memories, and we appreciate that his insistent appeal was one for aid in the relief of the actual disease of Joe and his fellow-sufferers. This sort of call for help has always met in civilized times with immediate and generous response.

Though as orthopedic surgeons we are continuously striving for better achievement in our surgical work, we, nevertheless, realize that we must do much more for the crippled child than simply attend to his surgical needs. It is soon realized by the surgeon that his treatment of these cases is not an affair of a few weeks or months; that many of his cases are for several years necessarily removed from the activities of the normal child, and that many of them must endure throughout life the burden of crippling conditions. Our work is less than half done if we stop at the services rendered by hospitals and clinics. We must depart from the idea that the crippled child has only a life before him of dependence, or beggary. It must be our object to place him physically, morally and intellectually in a position of self-reliance and independent industry. In the first place, the cripple has not had a fair chance, or a just opportunity, to work out the best that in him lies. His physical condition, of course, must be brought to the highest standard, if he is to be capable mentally, if he is morally to be uplifted, if industriously he is to add his work to the progress of society.

The difficulties which face the crippled child in seeking an education under the conditions which are supplied to the normal child are very great. He must take himself laboriously to and from school; he must climb stairs; he must sit on benches ill-fitted to his comfort, carrying, as he often does, a mechanical apparatus. The discipline and uniformity of the ordinary public school does not allow of the proper consideration, and again he must lose time from school in his attendance on clinics, for the medical side of his

treatment. Furthermore, the crippled child needs very different attention at school from the normal child. Much individual attention should be given, and this is not possible in the large and crowded schoolroom.

Another sad element is the attitude of the normal child toward the cripple, which is present in most of our memories in reviewing the lot of the crippled child in our elementary school-days. The crippled child possesses, as a rule, a high degree of introspection, which makes him old before his time, makes him philosophical and thoughtful. These mental attributes may work for good, or for evil. Repression, physically, mentally and industrially, brings about a moral degeneration, a feeling that hope is taken away. It should be our object as surgeons to supply to the crippled child the necessary uplift and give to him aspirations which will make his accomplishments greater and his outlook broader. The special training of the crippled child is of comparatively recent beginning. It is a work, however, which has gone on with remarkable speed and there are now many schools for cripples, which cover in their curriculum the special requirements of this class of individuals. These schools have for their object the special education of the individual case, taking into consideration the child's physical disability, the amount of work, mentally and physically, that it is possible for him to accomplish, and the character of work which his bodily infirmities make it possible for him to do. It must be borne in mind that the teachers must cooperate with the medical side of the situation, and that they must be ever on the alert to protect the crippled child from over-exertion, from fatigue, or from physical discomfort. The close connection between the clinic and the school has proved to be of great benefit to the patients, in order that the medical treatment can be closely followed and continuously maintained. This is not possible when the crippled child endures the long hours necessary to attendance at the regular public school, where he takes his place with normal children in ordinary class work.

Another important factor is, that the crippled child should not exert himself in the act of transportation to and from school. This difficulty has been met by the special schools for crippled children by having them transported each day from their homes to the schools in conveyances, thus insuring prompt attendance.

Aside from the ordinary education which is necessary, it is also essential that the crippled child should have some industrial training, some special work, trade or art should be taught him, so that he may look to this in his future years as the means of self-support. In the schools which are in operation for the education of crippled children the industrial departments have proved themselves to be of the most encouraging nature.

Classes in sewing, dressmaking, embroidering, tapestry weaving, leather tooling, hand-carving, making jewelry, brass work, bookbinding, basket work, commercial printing, carpentry and shoe-making have shown that the crippled child possesses in many instances more than ordinary ability to learn these types of industry and fit himself for a future of self-support. That this is necessary needs but a moment's consideration. We all realize how hard the obstacle of physical disability is to overcome in securing a wage-earning occupation. Many industrial pursuits and semi-physical occupations are completely closed to the cripple, so that when adult life is reached he has not only the consciousness of his physical inferiority stored up within his mind, but constantly meets checks and discouragement in seeking employment. The future of the industrial schools for crippled children should look forward to the point where an opportunity is given to the crippled individual to earn his own living in a self-respecting manner.

Another work which must be assumed by the orthopedic surgeons and by the authorities in charge of the education of the crippled child is that which should devote itself to the physical betterment of the cripple. Certain forms of physical exercises, certain types of gymnastic training are perfectly possible, certain games can be indulged in with safety and with benefit. Though these children present a very heterogeneous group, made up of those who are disabled from malformation, injury, overweighting, paralysis, bone or joint disease, or other causes, there should be cooperation between the surgeon and the school-instructor which would insure to each patient individual observation and individual care, so that many who are anemic, undersized, or undernourished, may be put in the best hygienic surroundings and may have given to them the proper kind of physical training, which will restore to their bodies the best physical condition which is possible to them.

The work which should be done, then, for the crippled child is of a four-fold nature: In the first place, hospitals and clinics should take care of his physical needs from the surgical standpoint. In the second place, he should be educated during his convalescence, and not waste two, or three, or five years, which is necessarily wasted when he is expected to attend the ordinary public school. Third, he should be taught some industrial occupation which will secure for him a livelihood in the future; and, lastly, his physical condition, as well as his moral and mental state, should be carefully overseen by a thoughtful and painstaking cooperation between the surgeon and those who have charge of the educational side of his development.

Humboldt Building.

SPECIAL SCHOOLS FOR CRIPPLED CHILDREN

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All of the arguments which can be advanced for the education of normal children, and more, can be urged in behalf of the crippled child. Starting in life with a serious handicap, the only chance for the cripple lies in superior preparation for the struggle for a livelihood. Especially is it clear that children with unimpaired intellects, but disabled only in the activity of their limbs, may be capable of the best development, providing a fitting opportunity is offered them. In fact, their only hope lies in special training. In addition to proper surgical care, what the crippled child most needs, is that help which is required to offset or counter-balance the peculiar limitations imposed on him by his deformity. As a person's point of view is, to a great extent, conditioned by his environment, so the attitude of the crippled child is determined by his experience. In most instances, when crippled children first come under care, they have been largely neglected. Even if willing, their families have probably been unable properly to care for them. The social and educational considerations of those who have had medical care, as well as of those who have not, will have been almost wholly neglected. Shut in, neglected, deprived of any educational advantages, unable to engage in any form of activity and enduring an existence devoid of any fun or play, the crippled child's attitude may well be one of hopelessness and discouragement.

For the normal, healthy person, education is desirable; for the cripple it is essential; that is, unless he is to be a constant charge on the community. And this is as bad for the cripple as it is uneconomical for the state. Did the education of the physically defective cost five times as much as it does it would still pay the state to provide education for this class, judging from a mercenary standpoint alone. When considered from a humanitarian point of view, the necessity of education seems even more urgent. There is justice in the demand for help for those, who, with aid, may become independent, and without assistance are doomed to become a burden, as there is justice in the statement that it is a duty of the community to work for the transformation of hopeless, discouraged cripples into hopeful, ambitious and self-respecting citizens.

Both classes of crippled children need education. The temporarily crippled, chiefly those who are suffering from diseases of the joints and spine, need for a number of years, special surgical care which in most cases prevents ordinary school life. When such care is provided for a sufficiently long period, it can be expected that

a substantial recovery will take place, with a disability varying according to the extent and seat of the original disease and the amount of care given the condition. With proper care, many of the temporarily crippled recover. But if deformed, they will, however, be handicapped by their deformities in the competition incidental to bread-winning. With education and training suited to their conditions, they may be prepared for occupations fitted to their disabilities, which would be beyond their reach unless education were furnished them during the invalid years of their childhood. The happiness and success of the lives of these children are largely dependent on their nurture and training during these invalid years.

The permanently crippled children being always disabled, will, unless specially trained, become a burden on the community. If, however, special opportunities of education are furnished them suited to their condition, they may become either self-supporting or able to obtain some occupation which will diminish the burden of their support.

That this can be accomplished has been shown by many institutions, both in Europe and in the United States. The Royal Bavarian School for Cripples in Munich has educated and specially trained crippled children for more than half a century. It was established in 1832 as a private enterprise and twelve years later was taken over by the Bavarian authorities. To it must belong the credit of being the first institution for the care of cripples on the basis of education and development.

Following this example, many other homes with similar purposes were founded and soon France, England, Switzerland and Italy as well as Germany came to have one or more institutions for the care of cripples. An industrial school, founded in Copenhagen, Denmark, in 1872, has been a leader along many lines. Since that time there have been institutions established in the United States, Sweden, Finland, Russia, Norway, Austria, Hungary, Holland and Belgium. (For this survey of the historical development and present status of care for cripples, I am indebted to a recent publication, from which I have quoted freely, written by Mr. Douglas C. McMurtrie of the Association for the Aid of Crippled Children of New York City.) England has for many years had excellent institutions for the care of cripples and there are several agencies there which have done pioneer work along certain lines.

Perhaps the most interesting tendency at the present time is the increasing responsibility for the education of cripples which is being assumed by public authorities. In the United States much work has been done, although most of it has been concentrated around several centers. One phase which is practically unique, is state care. Four



From "Dorothy's Idea," by Douglas C. McMurtrie.

states of the Union now have the only institutions for cripples which have been started wholly by legislative initiative, and have been managed entirely under public auspices. These states are Massachusetts, New York, Nebraska and Minnesota. The institutions are in the main, efficient modern establishments.

Lastly there is a work of splendid promise that has been inaugurated by the public school system in two cities, New York and Chicago. We shall refer to this work later.

Broadly speaking, there are two distinct methods of providing for the education of crippled children. One is residential treatment in institutions and homes, the other is in non-residential schools to which the children go each day. As a general thing, when the latter method is used, the requisite medical attention is secured by sending the children to clinics or dispensaries. In cases of extreme disability or long-continued sickness, the residential system is essential, but in cases where occasional treatment only is required excellent results have been attained by the day school plan. Realizing, therefore, the need in serious cases of the residential system in its own excellently developed field, and the ability of St. Louis to meet this need at least in part, we will consider only such cases as do not demand residential treatment.

The logical provision for such children is education in day schools so modified as to be adapted to their special requirements. Primary education for cripples as well as for normal children should be furnished by the state, for the following reasons: In the first place it puts the expense where it belongs and leaves private philanthropy free to exert its efforts in other directions. Secondly, it places the work on a more permanent basis, relatively independent of changes in management or the decreases of a fluctuating income. Again, it accomplishes the very excellent end of removing regular education from a charitable category. This has long been desirable in the case of normal children, and the same arguments apply in the case of the crippled child. Finally, it makes the whole educational process more normal, as it allows the crippled child to go to the same school as does his more fortunate brother. Separate special schools, from the child's point of view, are a help toward relieving the narrowness of existence, but the chance to go to the regular public schools is a blessing that puts him on the high road to regaining a normal and healthy view of life. It contributes inestimably to his happiness and adds materially to his self-confidence, which has in so many cases been almost totally obliterated. In addition to this, the efficacy of this system, from a pedagogic and administrative point of view has been amply demonstrated.

Universally speaking, very little has been done along these lines, though in specific instances and localities, excellent results have been obtained. In

England there has been developed an excellent system of day schools for crippled children in conjunction with the public school organization, and the accommodation afforded is more approaching adequacy each year. In New York City there are day schools under both state and private auspices. In Chicago there are special classes maintained in the public schools, and in Boston there is an excellent day industrial school under private management. In most instances of private management, the establishment of the school was prompted by the failure of the public authorities to provide for the situation. In some cases it is necessary to furnish trade education by private means, but now there is a growing sentiment in favor of the provision of this, too, by the state.

For crippled children attending such schools it is necessary to provide, in addition to the instruction at the school, daily transportation from the homes and a nursing supervision over the children's physical condition.

St. Louis has at present no provision for the education and training of the mentally normal, but physically defective child, aside from the regular public school classes, which as one crippled applicant was told, he may attend at his own risk; if by chance he be so fortunate as to be able to get to the school, or to be brought, as another child is, in an express wagon. A few of our private homes receive and care for crippled children, but are unable to give the special care and training which alone can fit them for happy and useful lives.

It is at present impossible to estimate accurately the number of crippled children in St. Louis, needing special care. As a basis, however, of a very small investigation, a study was made of all the crippled children that had attended the St. Louis Children's Hospital, including the dispensary, in the year 1911. After eliminating all cases from out of town, all knock-knee, bow-leg and ricket cases, and all mentally defective children, we had 115 cases, eighty-eight of whom were of school age. We then visited the homes of seventy-one of these children. Moreover, we asked the Department of Hygiene of the Board of Education to send us a list of all cripples in the public schools. In due course of time we received a list of 127 names grouped according to the twenty-eight schools they are attending. It soon became evident that this was an incomplete list, as there were on the hospital list eighteen children attending thirteen schools, not mentioned on the Board of Education list. Only eleven names were on both the hospital list and the school list. Of the seventy-one, twenty-nine are attending the public schools, but having no provision made for their disabilities or deformities; nine are at parochial schools under the same conditions. Seventeen who have at times attended school are now out of school because of their

physical defects, and thirteen had had no schooling at all for the same reason. Three girls had succeeded in graduating from the grammar school.

Adding the school list and the total hospital list (not counting the eleven duplicates) we know of 246 cripples of school age at the present time, needing special educational care. And how many children there must be in the city that have not attended the Children's Hospital and are not on any school list!

In the light of the fact that so many crippled children are already attending the public schools, the question might arise, do they need any special provisions? Let me cite a few instances and facts about children that are now attending public schools:

No. 1.—Boy 10 years. Hip disease. Has cast on entire body and down right thigh. At home sits on a high stool as the only comfortable arrangement. At school has usual seat and complains of the discomfort.

No. 2.—Girl 9 years old. Infantile paralysis. Brace on right leg ending just below the knee. Four inch heel, heavy sole. Feet do not touch floor firmly has to stretch foot for toes to touch.

No. 3.—Girl 13 years old. Pott's disease. Very short for her age. Has been in public school about five years. Has the ordinary seat. Feet rest on floor, but desk edge strikes very high on her chest.

No. 4.—Girl 12 years. Plaster cast on body and around neck. Usual seat.

No. 5.—Girl 9 years. Hip disease. Right leg and body in cast. Usual seat.

No. 6.—Girl 14 years. Curved spine and infantile paralysis. Usual seat, but allowed to choose her own seat.

No. 7.—Girl 7 years. Just starting school. Infantile paralysis. Heavy brace on left leg. General health very poor. Home conditions most unfavorable.

No. 8.—Boy 14 years. Hunchback. Plaster cast on body. Usual seat.

No. 9.—Boy 8 years. Hunchback. Plaster cast from under arms to hips. Right shoulder much lower than left. Usual seat.

No. 10.—Boy 7 years. Tuberculous shoulder. Body, shoulder and right upper arm in plaster cast. Must not use right arm. Usual provision.

No. 11.—Boy 11 years. Infantile paralysis. Cannot sit up straight and has great difficulty going up steps. His body twists and he falls easily. Seven years in school with ordinary seat.

Does not St. Louis owe as great a duty to the crippled child as to the normal one? Is the magnificent equipment of this splendid public school system to be used for the physically defective child only under protest, or to its bodily disadvantage? As members of the community crippled children are entitled to education in all the industrial as well as academic branches that are offered to normal children, not as a charity, but as a right. The adequate and special provision for such education should be urged on the proper authorities, and then when the advantages are offered it should be made possible for the children to avail themselves of them.

In one of the eastern cities (New York) this is accomplished in the following manner. The Board of Education in that city supplies a classroom in three of the public schools. In the newer schools the class-rooms are on the ground floor, opening directly on a court, where the children may play in the open between lessons. Desks and chairs of special design are provided, which can be adjusted in every particular to the individual need of the occupant. The teachers are specially selected with regard to patience and ability, and receive an increased compensation. There is no regular schedule, and the work is so arranged as to be adapted to the needs of crippled children. The general curriculum is approximately the same as that pursued in the regular classes. Special attention is, however, devoted to work of a constructive character. School is over each day at 2 o'clock; these special classes letting out one hour earlier than the rest of the school. It is very generally considered, however, that this shorter period of work is fully compensated for by the greater amount of individual attention the children receive. The classes are much smaller than the average, each teacher having about twenty children. As a general rule the crippled children make about as much progress as the scholars in the regular classes.

The daily transportation of the cripples to and from the schools is provided by a private association. For this purpose the association supplies omnibuses of the ordinary type, presided over by a trained nurse and manned by a coachman and a carrying boy. Each omnibus starts at half past seven in the morning and makes a trip over a prescribed route, picking up the children at their homes. All those who are able to get downstairs are waiting on their doorsteps, and the carrying-boy helps them into the vehicle; those who are not able to get down to the sidewalk he goes upstairs for and carries down. The nurse superintends and directs all handling of the children. When the omnibus is full the children are taken to the public school and left there, while the omnibus makes another similar trip before nine o'clock. The nurses do all they can to better the condition of the children by exerting a salutary influence on them in their twice daily contact with them, and by visiting in the families, they endeavor to so instruct and influence the child's parents that home conditions may be greatly improved. They maintain a general oversight of the child's physical condition, and they see that attendance at the clinic is regular and that the surgeon's directions are followed. The association endeavors to arrange for vacations in the country and when the children graduate from the schools, and the active daily relations consequently cease it endeavors to supplement and complete its work by placing them in position where they will be self-supporting and independent. The whole aim is to make the condition of

the children more normal and healthy, not only physically, but also mentally and morally. The tendency is away from institutionalism and toward the encouragement of the best possible care of the child by his own parents. The Chicago Board of Education not only has special rooms in the public schools for crippled children, but supplies transportation for those that need it, hot lunches and rest rooms.

There cannot be many needs in St. Louis more urgent than the need of provision for the special education of crippled children. Surely the school authorities need but to have their attention called (again) to the fact. It is not unreasonable to ask that a few class-rooms be prepared for the use of cripples and that teachers be furnished, even if transportation cannot be managed. When this is assured, I venture to say that we will not have long to wait before some private philanthropy will undertake to furnish the transportation and nursing care.

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THE PREVENTION OF BLINDNESS

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In discussing the prevention of blindness it would be well to classify and study its causes, for by preventing and curing them we will be able to prevent blindness.

Blindness is caused by accidents, disease or inherited conditions.

To mention the accidents which cause blindness is to suggest the remedy. We frequently see children who have lost the sight of one or both eyes from injury with a fork, a pair of scissors or knife, or some other sharp instrument. This at once suggests that parents and nurses should be constantly on guard to see that children are not allowed to handle such things. "Eternal vigilance is the price of liberty," and we might add in this connection of eye sight also.

Another class of accidents which cause blindness is due to the breaking of machinery. We are glad to say that many employers are installing shields and guards and other devices to protect their employees against such accidents. They deserve credit for, and should be encouraged in, every such effort.

There is another class of accidents which I would like especially to speak of, as such accidents are the result of absolute selfishness and lack of consideration, and are entirely unnecessary. I refer to the injuries which are inflicted usually on little children, by the bean shooter, the air gun and the cat rifle. I wish we might be saved from the harvest of injured eyes which follows the distribution of these as gifts at Christmas. It is inexcusable to place any of these playthings in the hands of children in a city full of

children, and it is but little better in a village. I would be very glad to see the manufacture and sale of these toys prohibited by law. I never see one of these cases but I ask myself why was this child allowed to be exposed to such a risk?

I believe there is an ordinance in St. Louis against these instruments of injury, and I hope it will be rigidly enforced. Let children and grown up people handle such things only when they appreciate how dangerous they are, and especially dangerous to others. When a boy shoots out his own eye it is bad enough, but when he shoots out the eye of another little boy or girl, words fail me to express my sorrow and indignation.

There are also a number of accidents almost every year, when in the excitement of quail shooting, the gunner does not notice that his hunting companion is in line with the bird, and in his attempt to kill the bird he fills the eyes of his friend full of bird-shot.

There are blind people all about us whose misfortune is due to accidents, and most of these accidents are due to carelessness.

Those who wish to prevent blindness must never weary in inculcating and practicing incessant carefulness to prevent accidents to eyes.

The second cause of blindness is unpreventable and preventable diseases. The only means of prevention of blindness from the unpreventable diseases is the wise care of a competent oculist.

The chief preventable diseases which cause blindness are gonorrheal ophthalmia, ophthalmia neonatorum and trachoma or granular lids. To prevent gonorrheal ophthalmia, "Thou shalt not commit adultery." Keep away from the gonococcus. Lead a decent life, or, if you have made the acquaintance of the gonococcus, be very careful not to convey the discharge to your eyes or the eyes of any one else by your fingers or dirty cloths which may have been used in treating the disease. See that all gonorrheal discharges are at once burned. If the disease has found a lodgment in the eye, seek the best ophthalmic advice you can get with no loss of time, for the destruction of sight from this form of disease is very rapid.

About 20 per cent. of the blindness in this country is due to ophthalmia neonatorum (sore eyes of the new-born). About 60 per cent. of these are due to infection of the child's eyes by gonorrheal discharges from the vagina of the mother while the child is being born. To prevent this disease keep away from the gonococcus. As it is uncertain whether or not a case of gonorrhea is ever cured, teach boys and young women never to run the risk of contracting gonorrhea. If they have contracted it and later marry and bear children they should acquaint the accoucheur with this fact in their past history, that proper measures may be taken to get rid of or destroy the germ as soon as possible after the birth of the



Class in Manual Training, New York Hospital for Ruptured and Crippled.

child, before the germs have had time to infect the eyes. Let every woman who is to bear a child demand of her husband moral cleanliness, or if he has not that, let her demand honesty of him in the treatment of her and of her child in telling her accoucheur of the possible danger to which the eyes of the child will be exposed.

I shall not discuss in this paper the value of Credé's method, and its substitutes, for the prevention of ophthalmia neonatorum, as that belongs to the medical consideration of these cases.

I will say to the layman, however, if your child has a severe inflammation of the eyes within the first week of its life, get the services of the best oculist you can; he can probably save the baby's eyes. But lose no time, for such an inflammation is like a fire in a hay-stack, and burns up all the tissue it is capable of destroying very quickly.

Another cause of blindness is trachoma, or granular lids. This fact is so well recognized that the quarantine authorities will not allow immigrants having granular lids to land in this country, but send them back to the land from which they came.

Unfortunately the disease exists here among those who are born in the United States, and we must guard against its spread by other means than quarantine. It is variously estimated that from 3 to 10 per cent. of the blind are blind from trachoma. In many of its stages it is very difficult to distinguish trachoma from the various forms of conjunctivitis, so that in our efforts to prevent blindness we had best take the same precautions against all forms of inflamed eyes.

Trachoma is contracted only by conveying the poison from the diseased to a well eye. The method of conveyance is the use of a common towel, possibly the same handkerchief, or washing in a common basin, or sleeping on a pillow case that some one, having sore eyes, may have slept on before. Our children should be instructed never to use a towel that has been used by any one else. Our nurses should be instructed never to use the same handkerchief for themselves and the children they have the care of, and never to use the same handkerchief for two or more children.

Another important point is to instruct the person having "sore eyes" to wash and wipe out carefully the basin after they have used it. When the eyes of one member of a household become inflamed, the greatest care must be taken, as above suggested, to prevent the other members becoming affected also.

Our *public* schools exclude children having sore eyes from attendance, a most wise precaution, and in this respect the child of the laboring man who goes to our public schools is better cared for than the child of wealthy parents, who attends a private school.

The clinical differentiation between trachoma and follicular conjunctivitis is so difficult that I

would advocate that children with any form of *sore* eyes be excluded from our public and private schools.

We have blindness caused by hereditary syphilis, manifesting itself in interstitial keratitis, and accompanying iritis; sometimes it causes atrophy of the optic nerve, any of which diseases may lead to total loss of sight.

If the mother or father is known to have had syphilis, the mother should be treated carefully with mercury while carrying the child, and after the child is born a skillful oculist should be consulted at once on the appearance of any inflammatory symptoms about the eyes, as they may indicate a beginning keratitis or iritis; if there is any seeming loss of vision it should be investigated at once, as it may indicate a commencing atrophy of the optic nerve.

Still another cause of blindness is due to the marriage of people having certain conditions affecting their own sight. There are two of these which parents transmit to their children.

Night blindness, or retinitis pigmentosa, and congenital cataract are transmitted from parents to children from generation to generation. Children should not be brought into the world who are doomed before their birth to be heavily handicapped in the strenuous struggle for success, which living in the present day requires. Again every healthy woman who goes through the discomfort and anxiety of pregnancy, and the pains and danger of child-birth, is entitled to have a strong healthy child that shall be a constant joy to her, and not one whose incapacity and misfortune shall constantly wring her heart. If she or her husband has congenital cataract or retinitis pigmentosa, her child is almost certain to be a disappointment and a burden to her, and a great injustice has been done her and the child.

I am strongly in favor of a law prohibiting the marriage of anyone having night blindness or congenital cataract.

Of course, it goes without saying that where any of these causes of blindness have manifested themselves, the best medical skill should be sought at the earliest opportunity.

Metropolitan Building

HEREDITY OF BLINDNESS

CLARENCE LOEB, M.D.

ST. LOUIS

The science of medicine has advanced by successive stages from the incantations and magic of primitive man, through its medieval period of empiricism, into the present stage of scientific research. And of all the treasures which have been wrested from the jealous guardianship of Nature, none is more precious than the doctrine of prophylaxis. Long ago, the homely wisdom of experience taught us that an ounce of preven-

tion was better than a pound of cure, but in medicine we are only just beginning to realize the full force of this proverb. How has ophthalmology profited by it?

Ocular affections may be grouped into two classes, those which by the exercise of prophylaxis may be prevented or at least ameliorated, and those where, in the light of our present knowledge, such a consummation is as yet impossible. As an example of the latter I might mention tumors of the eye.

In the first group may be listed granulated lids and other infectious diseases of the eyes, industrial injuries, blenorrhea neonatorum, etc. Correct illumination and proper printing are doing their share in the conservation of the eyesight of school children. These and other examples could be quoted as a proof that ophthalmology has not lagged behind the other branches in the progress of medicine.

But there is one group of ocular affections which formerly would have been unhesitatingly placed in the class of non-preventable conditions, viz., congenital affections of the eyes. It is a question, however, whether these affections are really non-preventable; whether it is not rather an ignorance of the proper method or a disinclination or inability to apply it.

Congenital lesions of the eye may affect any part of the eye or the eye as a whole, and may result in any degree of loss of sight up to complete blindness. Anyone who has observed the rapid progress in education made by children after they have been fitted with the proper glasses, realizes the immense handicap under which children with defective eyesight labor. How much greater is that handicap when it is a permanent, irremovable one, as in the case of many forms of congenital blindness. Fortunately, the labors of many worthy men and women have resulted in an amelioration of the condition of the blind, but at the best their condition is far inferior to that of sighted people. Those who like Helen Keller burst through the limitations of physical disabilities are the exceptions, and there is always present the possibility of much greater achievements, had they not been thus handicapped. The saddest sight I know of, is that of a blind child deprived by its affliction of a sight of the beauties of Nature, and even of the parents who gave it birth. Is it not our duty to prevent as far as lies in our power this affliction and to decrease thereby the sum total of human misery?

On the face of it, it is evident that any intervention is too late after the birth of the child. Our task then is to ameliorate as far as possible the condition present. For instance, if the child is born with a congenital cataract, it will be our duty to operate at the proper time, and later to prescribe the necessary glasses. But on the whole, we are largely helpless after the condition is once established, and it becomes our duty to investigate

whether or not it is possible to prevent these untoward conditions by an earlier intervention, one during the embryonic life of the child.

Unfortunately we know too little about intra-uterine life and the play of forces taking place there to hope for much success along this line. We do know that a large number of congenital affections are based upon a syphilitic condition of one or both parents, and we may reasonably expect that a vigorous antisiphilitic treatment instituted early enough will have a beneficial effect upon the child, possibly cause it to be born with normal organs, but when we have said that we are at the end of our resources. Possibly, even probably, future biologic investigations will teach us enough about embryonic, vital processes to enable us to regulate them, but at present we must admit that except for our ability to attack and prevent syphilitic processes, we are helpless.

Let us go a step still further back. If it is practically impossible to exert any influence after conception has taken place, are we in any better stead when we attempt to regulate conditions before pregnancy? That is, are we able to influence the descendant by caring for its ancestor?

Here again, we find our way obstructed by the blank wall of ignorance. The science of human eugenics is still too young to yield us much information. We know that well developed, normal individuals will probably have normal offsprings, and that abnormal, deficient parents will probably have abnormal, deficient children, but as to the mechanism by which ancestral taints are transmitted to descendants, we must confess our lack of knowledge. We are still waiting for the master-mind to tell us how the chromatin threads carry the hereditary principle, if they really do, after which we may have some hopes of influencing it. It is true we may by means of food and drugs bring the parents into better physical condition and thus indirectly influence the state of the child, but we must admit that this is pure empiricism, and not expect much along this line.

Not all congenital ocular affections are hereditary, but on the other hand, not all hereditary lesions are congenital. We have congenital cataract, for instance, directly due to—we know not what. But the literature is full of cases of hereditary juvenile, adult and senile cataract, while containing an equal if not greater number of cases of affected individuals, unique in the family history.

The statistics of Magnus show that about 2 per cent. of all cases of blindness is hereditary, and about 10 per cent. of congenital blindness is hereditary. According to the tabulated report of the United States Census Report for 1900, there were 85.2 blind people in the United States to every 100,000 inhabitants. Therefore, in a city the size of St. Louis, there are about 680 blind people, of whom thirteen are suffering from some form of hereditary blindness. Thir-

teen is not such a very large number as compared to 800,000 people, but to each one of these thirteen, his blindness is a matter of vital importance, the one great ever-present fact of his life. Moreover, his blindness is a matter which concerns not him alone, but an ever widening circle of relatives, friends and the community at large, from an economic standpoint if from no other. He must live, and if unable to support himself, must be supported by others—by the state if by no one else. Of the 62,453 blind people in the United States over 10 years of age, and therefore presumably able in some measure to contribute towards their own support, only 12,506 were engaged in remunerative occupations. The remainder, 49,947, or 80 per cent., were dependent on others for their support. We have therefore a question which appeals to us economically as well as sympathetically—what shall we do to prevent blindness?

As far as hereditary blindness is concerned, the solution is ridiculously simple. Every case of direct hereditary blindness must have had a father or a mother similarly affected. To prevent that case, it would have been sufficient to prevent the marriage of the affected parent. No child would have been born, and consequently there would have been no case of hereditary blindness. Please remember, however, that not every case of congenital blindness is hereditary. It would be illogical to argue, therefore, that because a child was born blind, the parents should never have married. The parents may have been to all appearances entirely healthy and therefore only healthy children could have been expected from such a union. But if either of the parents is affected with any form of hereditary blindness, it is reasonable to expect a certain percentage of the children will inherit the disease.

And what of the child? Born to a life of darkness, he grows up terribly handicapped, even when his parents have sufficient worldly possessions to insure him from want. How much worse is his state when he must compete for the necessities of life with those better equipped than he for the struggle for existence. And when he fortunately or unfortunately has arrived at the age of manhood, shall he be allowed to marry and become the parent of offsprings similarly handicapped? That this question is no academic one, but one that demands our serious consideration, is shown by the results of a statistical study, which I made a few years ago, a table of which is reproduced below.

The question of hereditary blindness is approached from a different angle from the usual one. While it is important to know what proportion of all the blindness in the world is inherited, it is of far more importance to know the proportion of children of a blind parent that will inherit his blindness. It is possible for apparently healthy parents to have a blind child.

DISEASES	Direct Heredity, Both Parents Affected					Direct Heredity, One Parent Affected							Indirect Heredity					Collateral Heredity				
	Families	Total Children	Affected Children	Normal Children	Affected Children Per Cent.	Families	Affected Fathers	Affected Mothers	Total Children	Affected Children	Normal Children	Affected Children Per Cent.	Families	Total Children	Affected Children	Normal Children	Affected Children Per Cent.	Families	Total Children	Affected Children	Normal Children	Affected Children Per Cent.
1 Albinism .....	..	..	..	..	..	5	29	30	17	2	15	12.0	4	0	0	0	0.0	8	43	21	22	48.0
2 Aniridia and coloboma iridis.....	..	..	..	..	..	59	29	30	156	116	40	74.0	4	12	8	4	66.6	9	31	23	8	74.2
3 Anophthalmus and microphthalmus.....	..	..	..	..	..	26	11	15	57	40	17	70.0	3	4	4	0	100.0	19	56	43	13	77.0
4 Atrophia nervi optici.....	..	..	..	..	..	46	28	18	120	56	64	46.6	43	155	93	62	60.0	61	231	163	68	70.0
5 Cataract	3	15	9	6	60.0	304	145	*7	1,012	589	423	58.0	29	107	45	62	42.0	68	312	193	119	61.8
6 Ectopia lentis .....	..	..	..	..	..	43	19	24	155	109	46	70.0	3	12	6	6	50.0	18	45	40	5	88.8
7 Family degeneration of the cornea.....	..	..	..	..	..	18	10	8	62	26	36	42.0	1	12	2	0	100.0	13	50	34	16	68.0
8 Glaucoma .....	..	..	..	..	..	44	23	21	131	72	59	55.0	1	10	4	6	40.0	13	53	33	20	62.0
9 Megalophthalmus .....	..	..	..	..	..	1	0	1	0	1	0	100.0	0	0	0	0	0.0	7	27	20	7	74.0
10 Nyctalopia .....	..	..	..	..	..	18	8	10	56	26	30	46.0	3	11	11	0	100.0	0	40	29	11	70.0
11 Ophthalmoplegia and ptosis.....	1	6	3	3	50.0	32	24	8	121	77	44	63.6	1	1	1	0	100.0	5	17	13	4	76.0
12 Retinitis pigmentosa	12	10	5	5	50.0	126	61	65	405	203	200	50.6	25	71	52	19	73.0	133	541	349	192	64.5
Totals and average percentages.....	6	31	17	14	54.8	722	360	355	2,293	1,319	974	57.5	113	385	226	159	58.7	363	1,446	961	485	66.4

• Unknown 7 belongs to cataract and should indicate that in seven cases it was not known whether the father or the mother was affected.

This is one of the unfortunate things that we cannot prevent, in the light of our present knowledge of vital processes. But if a child born with congenital cataract, for instance, will be the parent of children, of whom 50 per cent. or more will inherit his disease, *this* is a condition which can be prevented, simply by preventing him from marrying. By collecting the statistics of a large number of families with one or both parents blind, the accompanying table of percentage of normal and affected children has been calculated.

I will not discuss indirect and collateral heredity, as that would require too much time and the data are still insufficient, but will confine myself to direct heredity, that is where one or both parents are affected. It is rare for two blind persons to marry; it is still rarer for two persons with hereditary blindness to marry, and it is very rare indeed that these two should have the same form of hereditary blindness, so that there should be a summation of two tainted lines of ancestry. Therefore, the percentages for double blind parentage are probably not exact. But a sufficient number of cases of single blind parentages have been collected to show how great the danger is to the children of such a marriage. It is noteworthy that the larger the number of cases of any disease, the nearer the percentage of affected children approximates 50 per cent. It is true that there are cases of blind parentage where not one child was affected, but this is counterbalanced by families where every child was affected. And since there is always the possibility that the latter may be the result of the marriage of a person affected with hereditary blindness, what right have we to expect that the former will be the result?

According to the United States Census Report for 1900, of the 64,763 blind people in the United States, 17,333 were widowed, 24,559 were married and 379 were divorced, in all a total of 65 per cent.—almost two-thirds. Two per cent. of this number were suffering from some form of hereditary blindness, or 845. Of this number at least 800 were married to some person not affected with the same form of hereditary blindness. If we suppose the average number of children to be four—and the records of blind families show that the number of children is usually much larger than this—there will be 3,200 children, of whom at least 1,600 will be blind—not only blind but capable of transmitting their blindness to their children. The only reason why the world is not full of blind people is that the children of blind parents very frequently die young. It is small comfort to the bereaved parent to be told that both the child and the race is better off—far better would it have been to forbid the marriage in the first place. Whether the child lives or dies, the sum total of human misery has been increased.

Furthermore, even if the child of blind parents has normal eyes himself, there is no surety that

his children will not be affected. There are many cases of indirect heredity, that is to say, cases where the blindness skipped one or more generations to reappear in subsequent ones. If not the sins, at least the afflictions of the fathers are visited upon the children unto the third and fourth generations.

I wish it to be distinctly understood that in advocating the prevention of the marriage of the blind, I am speaking only of those affected with some form of hereditary blindness. The question whether all blind people should be prevented from marrying, I leave to those who have made a special study of the social and economic conditions under which the blind live. But in the hereditary blind, the unhappiness caused by not marrying concerns one generation; the unhappiness caused by marrying affects untold generations, as yet unborn. One family of ten generations has been reported, of whom 1,800 members were affected with retinitis pigmentosa—and there are still members alive to carry on the disease. What misery might have been prevented had the progenitor never married—and only the mentally blind can fail to see the future when the past lies so plainly before them.

What are the conclusions to be drawn from this brief survey of the question of hereditary blindness? First of all, that it is a problem that requires our immediate attention, since delay will only aggravate the condition. A campaign of education should be commenced among the blind as well as sighted people which will drive home the knowledge of the dangers associated with the marriage of the hereditary blind. And finally, it should be made impossible by the strictest legal regulations for a blind person to marry unless it is clearly shown that he is not suffering from some form of hereditary blindness.

TRAINING OF THE BLIND CHILD

S. M. GREEN

Superintendent of the Missouri School for the Blind
ST. LOUIS

Contrary to popular prepossessions the training of the blind child is not discovering a sixth or seventh sense along with other supernatural qualities in an angel child, and by some mysterious process endowing him with miraculous powers, which enable him to be more gifted than persons with sight, but it is the development of his natural faculties, even though it be by a more lengthy and tedious process than that used with his sighted brothers. There are as many varieties of disposition, grades of mental capacity, and shades of moral susceptibility, as observed in sighted children.

Blind children, like sighted ones, often "creep like snails unwillingly to school," and cry as quickly, "Hold, enough" when too zealous

teachers would assign tasks "too grievous to be borne," and long for fun and frolics with roisterous companions, and given the opportunity vie with each other's prowess on the athletic field, in the fifty and seventy-five yard dash, putting the shot, and in the broad and standing jump. If the special schools seem sometimes to have obtained wonderful results it is because in them the time and efforts of the pupils are more thoroughly supervised, and whatever is accomplished is due to dogged perseverance on the part of both teacher and pupil.

The first school for the blind in the world was that founded by Valentin Haüy in Paris in 1784, the next was founded in Russia in 1806, the third in Germany in 1814, and the first in America was founded in 1831 at Boston. Now in the United States alone we have forty-two schools supported entirely or in part by state appropriation. The two oldest schools, in Boston and in Philadelphia, are private corporations, supported by endowment funds, receiving state aid only in part.

The number of blind children under the age of 20, or of school age, in the United States, is 8,308, or 12 8/10 per cent. of the whole number of blind persons, according to the census of 1900. The ratio of the blind to the general population in the United States, according to revised returns of a special commission in 1907 was 1 to 1,295, the whole number being 80,000. To come nearer home, the whole number of blind persons in Missouri is 3,325, 1,678 being totally blind, and 1,647 partially. The number of blind children in the state of Missouri of school age, according to a special list obtained from the census of 1910, is 227, of which 116 are in school. The remainder are not in school on account of ill-health, selfish refusal of parents to educate their children, but we can no longer say in ignorance of the school's opportunities, as the parents on this list have been informed of them.

These children may be roughly classified into three groups: those of good mental and physical capacity, with no other handicap than blindness; those who are backward and can work efficiently only under supervision and direction; and the feeble-minded blind. Provision is made for feeble-minded blind children in this state, there being five in the colony at Marshall at present. This latter class presents one of the greatest problems in schools for the blind, as their presence with normal children proves a great handicap to the progress of the class, the feeble-minded absorbing two-thirds or more of the energy of the teacher, and exerting harmful influence upon other children.

The number of sightless children in schools in the United States is 4,601. It is a far cry from that first school of Valentin Haüy to present-day methods of instruction of the blind, and it may be interesting to note the development of the

system of writing, upon which the further education of the blind depended. When Haüy attempted the first systematic instruction of the blind, he founded the school, which afterwards became the "Royal Institution for the Blind" in Paris. He had become interested in the helpless condition of some blind mendicants. One of them came to him one day holding a block with the letter "O" on it, and running his fingers over it showed Haüy that he connected the name and form of the letter. This led to the use of the Roman italic type, being the first used in embossed printing for the blind, in embossing in French the small book called "Essay on the Education of the Blind." This book was afterwards translated into English and German.

Following this, the use of lower case Roman, which was too difficult for the adult blind, came a phonetic system by Mr. Frere of London, which was greatly improved upon by Dr. Moon of Brighton, England, resulting in a system for the adult blind, which was an arrangement of cumbersome characters much resembling button-hooks placed in different positions. Then a decided change was made by the introduction of Braille in 1832, consisting of points arranged in various groups, which has been modified into American Braille, of which I shall give you an illustration shortly.

The course of instruction in these state schools comprises a curriculum corresponding more or less closely to that of the public schools, from the kindergarten through the high school, a music department, a manual training and industrial department, which attempts to develop manual dexterity and equip the pupils with some trade or occupation, by which they may become self-supporting. Schools for the blind and deaf were the first vocational schools in our educational system, as the need for equipping the blind with the knowledge of some practical occupation, by which he might become a bread winner, was keenly felt from the first. In addition to the scholastic instruction given in the majority of schools, the following occupations are usually taught: piano tuning, basket making, rug weaving, mattress making, broom making, mop making and chair caning, as each of these occupations can be carried on without aid.

The musical courses offered in a number of schools for the blind equal those of the best conservatories. A few weeks ago, Miss Margaret Wade of the Missouri School for the Blind, successfully passed the examination for the certificate of the State Music Teachers Association, being the first person to do so. But all blind people are not musicians, no more than all suffragists are window-smashers. In fact, the usual idea that a blind person can learn only one occupation has proved most detrimental to their cause, as the trained blind person of resourceful mental capacity may become successful in sales-



School-room at New England Peabody Home.—Courtesy of New England Peabody Home for Crippled Children.



This desk meets those special requirements not covered by the regular adjustable desk where the seating of crippled children is contemplated; adapted in its various adjustments to meet the most extreme condition of deformity.—Courtesy of the American Seating Company.

manship, or other commercial and professional lines of activity.

Two hundred and fifteen pupils, or 4½ per cent., or 1 in 22, in the United States, are being educated in the public schools of Chicago, New York, Cleveland, Newark, Cincinnati, Philadelphia, Milwaukee and Racine. The blind pupils report to a special teacher, who corrects written work and sends them to the various grades where they take the work in common with their seeing classmates. Mr. Pfüger, who has seventeen blind children in the Twentieth District Public School of Cincinnati, states that a blind boy is leading the Woodward High School of that city. Two blind boys are attending the Central High School in Philadelphia, and two graduates from Overbrook are attending the University of Pennsylvania. One graduate of the Missouri School for the Blind, Miss Julia Holt, graduated last June from the teachers' college of this city.

This plan has the following advantages: It gives the blind child the privileges of home life and keeps the responsibility for his development upon the parent; it gives him the opportunity of measuring his powers with sighted children, and thus develops his confidence, as he often finds there are many things he can do equally well with his sighted brother. It prepares him for contact with the world when he shall go forth to make his living among seeing people.

There will always be a place for the residential school for the following reasons: It provides for the isolated blind child in rural districts; it gives special training in occupations which could not be given in public schools; it provides special advantages in music, and in physical training, greatly needed for the enfeebled physique, which could not be given in public schools.

One striking instance of this was a little lad who had been allowed to spend most of his time sitting in a chair, instead of romping about as normal children do. He came to school so timid and distrustful of himself that crossing the playground alone was a great event with him. At the end of the term, after he had learned to frolic and to play on the school apparatus, his mother came for him. He felt the inward change so great that he thought the outside must be changed apparently, and said, "I want my mother to guess who it is, for she won't know me."

This brings us to one of the great problems connected with the training of the blind, which is the education of the blind-sighted public to recognize the ability of the blind man to take part in the business and social relations of life, to become other than a broom maker or a chair caner. To this, parents contribute by their failure to exact of their blind children the same duties required of sighted ones, and their over-indulgence and neglect fail to develop the child's will, as well as his physical powers.

The attitude of indiscriminating pity on the part of the general public throws the handicapped aspirant for independence back on himself without giving him the opportunity to prove his ability to support himself, or by extending to him the helpful hand which would lift him out of his slough of despond. To be blind is to be greatly handicapped, as it is to be deaf, or to have but one leg, or one arm, but 'tis a physical inconvenience. Do try to get past these externals into the real fellow being behind them. Let him but know your outlook on broader fields, and this touch of human brotherhood will reveal the warm personality behind. How many of these well-named "heroes of darkness" have overcome this handicap. Witness Fawcett, the blind postmaster-general of England; L. B. Carll, the writer and teacher of calculus in Columbia University; Prof. Campbell, the blind teacher of chemistry in Ann Arbor University; Sir Francis Campbell, the Tennessean, who created the foremost school for the blind in Europe at the Royal Normal College; Vidal, the French sculptor, and David Duffie Wood, the inspiring teacher and church organist in Philadelphia.

The next great problem is imparting that energy and ambition which enables the blind man to rise superior to his handicap. This is partially done by physical culture and training that will overcome the under-vitalized and feeble physique so often found accompanying blindness. This physical culture, to be efficient, must develop the handicapped blind child to such physical activity that his physical vigor will react mentally so as to give him the confidence and vigor to surmount the difficulties before him, but the greatest of all victories is to impart that inner spark of unconquerable fire, which knows no defeats, develops new resources, and peoples the land of twilight with capable, independent, and achieving citizens.

3815 Magnolia Street.

THE RELATION OF DEFECTIVE EYESIGHT TO BACKWARDNESS IN CHILDREN

With Demonstration by Lantern Slides

JOHN GREEN, JR., M.D.

ST. LOUIS

In the preparation of this symposium on the defective child, the program committee has placed at the end of the three evenings' discussion a consideration of the rôle played by defective eyesight in the production of mental and moral obliquity in many of the rising generation. I am assured that the position of my paper is not due to any failure of the committee to appreciate the immense importance of this rôle in the making of the backward child, but rather to a feeling that added emphasis would be given an all-impor-

tant factor by considering it at the end—on the theory perhaps, that the last would not be deemed the least.

Before discussing the different refractive states, let us glance for a moment at a diagram of a fore and aft section of the human eye (Fig. 1).

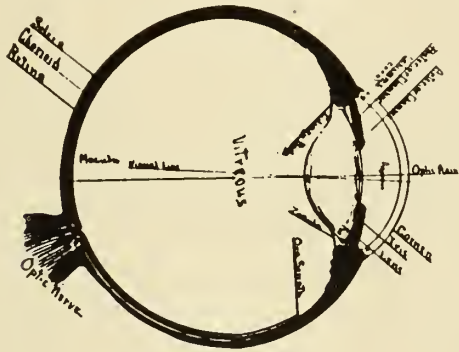


Figure 1.

Observe the three coats of the eye; the outer, or sclera, the middle, or chorioid, and the inner, or retina, which is an expansion of the optic nerve and the percipient element of the eye. In front we have the cornea, behind which lies the iris (with its central opening or pupil). The crystalline lens, held by fibers running to the ciliary body, occupies a position immediately behind the iris. The main body of the eye is filled with a transparent jelly-like substance, the vitreous humor.

In many respects the eye may be compared to a photographic camera; the cornea and crystalline lens correspond to the glass lens, the vitreous chamber to the bellows of the camera, and the

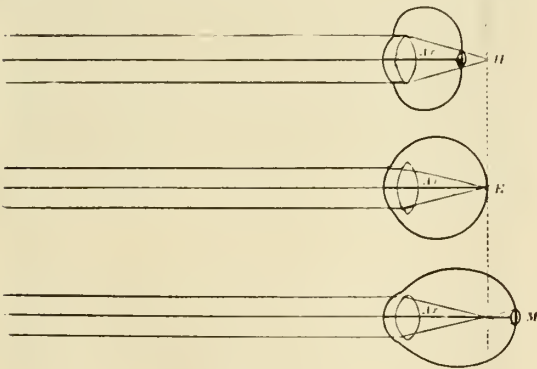


Figure 2.

retina to the ground glass, on which the inverted image of the object is received. Both the camera and the eye may be focussed for objects at different distances; in the eye the adjustment is made by an alteration in the shape of the crystalline lens; in the camera by changing the distance between the ground glass and the lens.

Figure 2 represents diagrammatically three refractive states of the eye, the farsighted, the

normal sighted and the nearsighted. In each of these eyes the power of the lens system is identical. Parallel rays, i. e., rays which emanate from objects 6 metres or more away, entering the far-sighted eye, are brought to a focus *behind* the retina; such rays entering the normal sighted eye are brought to a focus *on* the retina; such rays entering the nearsighted eye are brought to a focus *in front of* the retina.

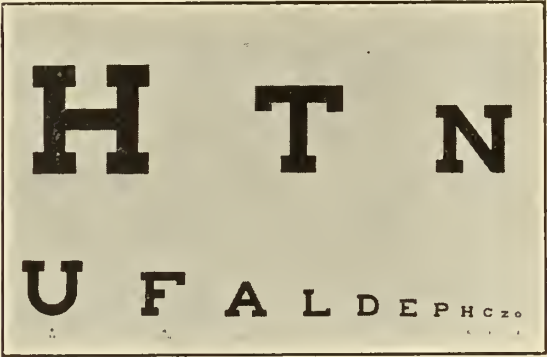


Figure 3.

Figure 3 represents a card of letters for testing vision at a distance. You will be able to discern even the smallest letters, but at 6 metres, with the chart its usual dimensions, the P or possibly the H is the limit of visibility for the normal sighted eye. Now how does the moderately farsighted eye discern these test letters? Such an eye (at least the farsighted eye of the child) sees precisely as well, or even a little better, than the normal sighted eye. How can this be? Let us revert for a moment to the diagram (Fig. 2) illustrating farsightedness, and recall the focussing mechanism of the eye. The diagram shows us that parallel rays of light are focussed behind the retina, and this is actually the case when the focussing power has been temporarily abolished by means of belladonna drops.

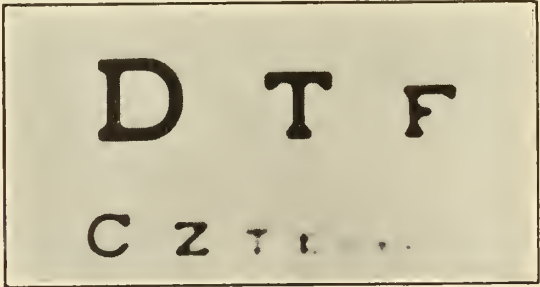


Figure 4.

But in the natural farsighted eye a part of the power of focussing which in the normal sighted eye is all used for focussing near objects, is, by reason of the craving of the individual for clear distant vision, used up. The image is advanced to the retina and distant vision is acute. Now if we temporarily abolish the focussing power by

means of belladonna drops, the focus will again recede behind the retina and letters at 6 metres will appear much blurred (Fig. 4). These will again be sharpened to their former distinctness, as soon as we place in front of the eye a + spherical lens of such a strength that the image is again brought forward to the retina. It should be noted that in children the focussing power is very strong and hence its temporary abolition by means of belladonna drops, or the like, is absolutely essential to a correct measurement of the degree of farsightedness.

Recalling to mind the diagram (Fig. 2), it is clear why the subjects of shortsightedness should have poor sight at a distance. The image of dis-

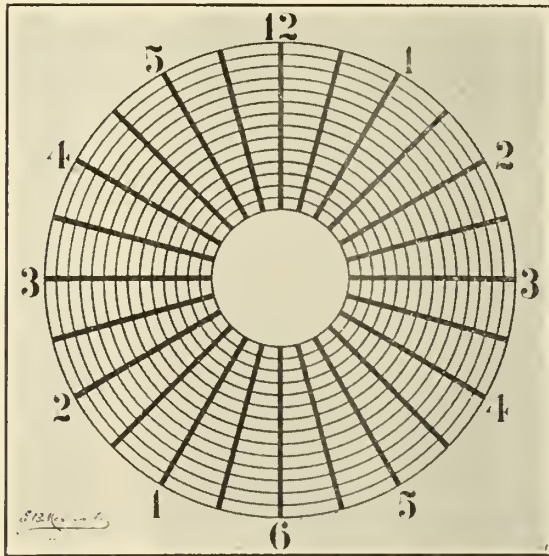


Figure 5.

tant objects is found in front of the retina, and hence the external world, beyond a radius of a few feet, is misty. Near vision is, however, easy, as diverging rays from a near object are brought to a focus on the retina. The error is corrected when a — spherical lens of a strength sufficient to throw the image back to the retina is placed in front of the eye.

Another type of refractive error remains to be considered, e. g., *astigmatism*, which cannot be well represented by a simple diagram. In this type of refractive error, the refracting surfaces are not spherical and hence rays of light are not brought to one focus. The defect usually lies in the cornea and is frequently associated with near-sightedness or far-sightedness.

Although I cannot show you a diagram of astigmatism, I can illustrate some of its effects on charts and test letters. Figure 5 shows a chart for detecting astigmatism. As seen it is supposed to be viewed by the normal-sighted or moderately far-sighted eye. Note that all the radii are equally black and distinct and of equal width.

Observe also that the concentric circles are uniform in appearance in all parts of the periphery.

Observe now the same chart seen by a moderately astigmatic eye (Fig. 6); note that the horizontal radii and those adjacent above and below are distinct, while the vertical radii and those adjacent are narrower and shaded. Note also that those portions of the circle nearly horizontal are plain, while those nearly vertical are very faint. The test letters viewed by a moderately astigmatic eye would appear as in Figure 7. Observe that the horizontal strokes of the letters are distinct, while the vertical and those approaching the vertical are much fainter. Figure 8 illustrates an astigmatism in which the principal meridian is oblique. Note the distortion of the letters and the slope down and to the right.

With these pictures in your mind, you will have no difficulty in realizing that children the victims of these refractive anomalies are able to perform the exacting ocular tasks imposed by our modern school curriculum only with the greatest difficulty. In the vast majority of cases, the mental capacity of children with errors of refraction

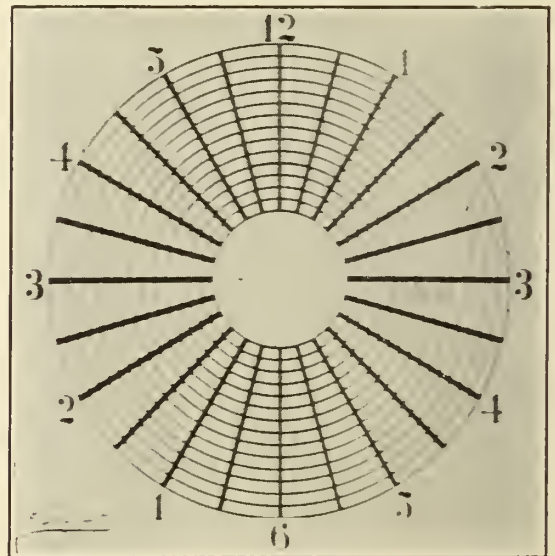


Figure 6.

tion is at least equal to that of their normal-sighted fellows. During the period of infancy, the little one is attracted by relatively large brightly colored objects and does not concern himself with their details. The kindergarten tasks (with one or two exceptions) make little demand for accurate vision of small objects at the near point. The first grade of school with its many kindergarten-like adjuncts and few reading requirements, does not tax the eyes unduly, so that, usually, it is not until the middle grades are reached that signs of ocular trouble first show themselves. Let us take for example the far-sighted child who has progressed through

the lower grades without complaint. He enters, let us say, the fourth grade. The number of tasks, demanding close application has increased; his book work is more prolonged, he is learning geography and studying maps with the names of cities and rivers and mountains printed in much too small type on a pink, or blue, or yellow back-

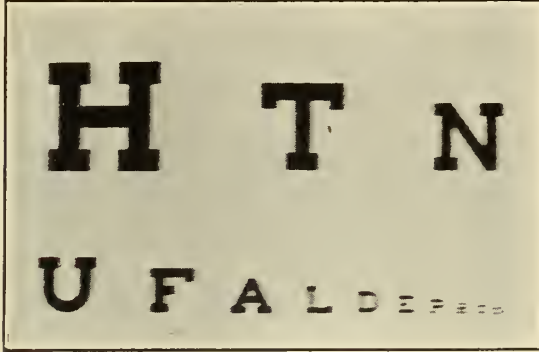


Figure 7.

ground. He has reached the stage of fractions and must look closely at the book to see whether he is to deal with " $\frac{3}{64}$ " or " $\frac{1}{32}$." The study periods have lengthened, the intervals of relaxation have shortened. All this time let us remember that the youngster's vision is perfect. He can see with ease the flying bird high in the sky—indeed, his visual acuity is so conspicuously good that it may be a matter of general remark that Jimmy has remarkably good sight. But recall that in obtaining this excellent vision at a distance, Jimmy has used up a part of his focussing power and has so much the less for his near tasks. Sooner or later the load will prove too great and

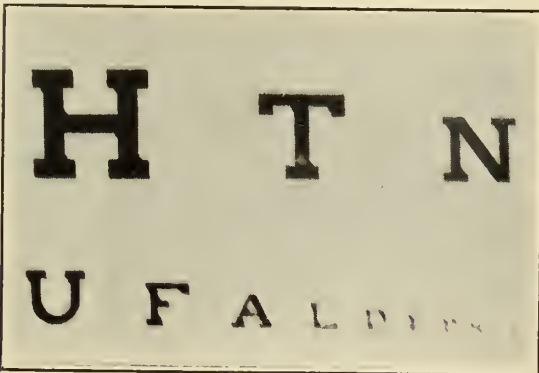


Figure 8.

"something happens." Now that something may be a symptom readily interpreted by the teacher or parent as a sign of weak sight—a headache coming on during the study hour, misty vision, watering of the eyes, or aching of the eyeballs. These signs may be present without evoking a complaint from the child, as it is well known that

many children are incapable of focalizing their aches and pains after the manner of adults. The child, conscious only of a discomfort somewhere, becomes fidgety, restless, inattentive to the tasks imposed by the teacher. He longs for recess, and is apt to receive a rebuke for his precipitancy in departing at the recess hour. The fifteen minutes' period of physical exertion is accompanied by ocular relaxation and rest so that for a short time after his return to the school-room, he can use his eyes at close range without trouble.



Figure 9.

Shortly, however, he becomes again fidgety and inattentive, and may strive to relieve his feelings by some overt act of indecorum, at which he is caught by the teacher and summarily punished. Each day witnesses the enactment of similar episodes. Jimmy, the model boy of the kindergarten and lower grades, is no longer doing well. His failure to advance with his class is a source of grief to his parents whose distress is all the more acute because the whole situation is inexplicable. Other symptoms may develop, such as

facial twitchings, sleep disturbed by nightmares, loss of appetite, all of which suggest to the parents' mind the possibility of a general derangement. The tonics of the family physician are tried for a time without success. Finally, by what fortuitous circumstance we are not here concerned, the small boy is brought to the consulting room of the eye doctor, tests are made, a pair of glasses is prescribed, and lo, the devil is exorcised and the angel in the young man reincarnated. Jimmy returns to school destined soon to catch up and eventually overpass his comrades. And his mental and moral status will henceforth be satisfactory alike to parent and teacher.

In many children, far-sightedness gives rise to local signs, e. g., congestion of the white of the eye; redness of the lid margins with the formation of scales, recurring styes, intermittent overflow of tears and fear of the light. When these are present it is obvious that the eyes are primarily at fault and must be attended to.



Figure 10.

When far-sightedness is associated with astigmatism, as is frequently the case, the sufferings of the poor child are even more acute. Indeed, his efforts to use his eyes are productive of real tortures. For him, too, a pair of carefully adjusted glasses is the greatest possible boon.

Some years ago when in charge of the Eye Clinic at the Protestant Hospital, on 18th Street, I had occasion to examine the eyes of many of the pupils of the Special School on Carr Street, between 17th and 18th streets. It was surprising how many of these children showed very high grades of asymmetrical far-sighted astigmatism. In some instances, notable improvement in the mental status of these pupils followed the adjustment of glasses. In others, with equally high grade error, the wearing of glasses did not have any appreciable effect in improving the mental status for the simple reason that in these children

the primary cause for the subnormality lay in congenital defects of the nervous system.

We next come to a consideration of myopia, or short-sightedness. This, while extremely important, from the standpoint of the individual and the school hygienist, can hardly be said to bear any definite relationship to the mentally deficient child. The near-sighted eye atones for its defective distant sight by giving its possessor excellent and usually comfortable near-vision. If the error be of any moment, it soon becomes impossible for the child to recognize the figures the teacher puts



Figure 11.

on the blackboard. This situation is usually met by the teacher moving the child nearer the board, a proceeding which satisfies all concerned. Under these circumstances increase in the degree of the error is almost inevitable. Not until distant vision very greatly fails or ocular pain develops are the oculist's services invoked.

The near-sighted child is studious and uncomplaining. Debarred by the limitation of his sight from receiving accurate visual sense impressions

of the external world, he is apt to retire within himself, to grow introspective and morbid. He avoids the rough and ready contact with his schoolmates, and creates for himself a little world of his own peopled with the characters of his beloved books. He soon loses all desire for the normal activities of the growing child, and hence begins to deteriorate physically. Our concern then is not with a mental inaptitude, but with a physical decline. To give such a boy glasses that will enable him to see as well as any one at a distance, is to transform the weakling and the

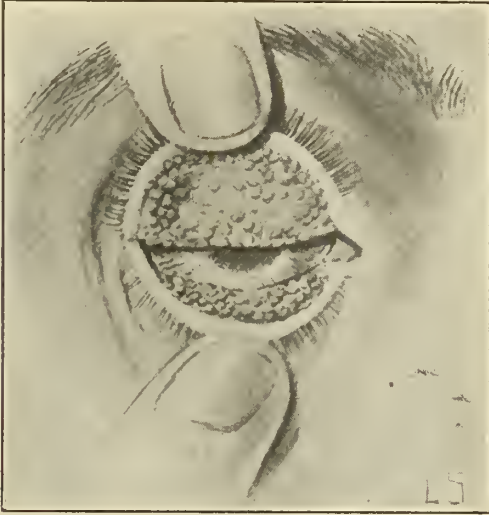


Figure 12.

mollycoddle into a being with all the potentialities of normal boyhood. Moreover, the constant wearing of correcting lenses affords the best means of checking the further increase in the degree of the near-sightedness.

Except in the rarest instances children are not born near-sighted. The near-sighted eye is created from the far-sighted and normal-sighted eye. The influence of the external conditions of school life on the development of near-sightedness is beyond controversy. About forty years ago, Cohn, of Breslau, examined 10,000 school children and found in the lower grades 90 per cent. of far-sightedness; 7 per cent. of normal-sightedness, and 3 per cent. of near-sightedness. In the higher grades the percentage of far-sightedness had fallen to 67 per cent., the percentage of normal-sightedness had risen to 12 per cent., and the percentage of near-sightedness had risen to 21 per cent. The increase in the percentage of normal-sighted individuals indicates that a certain number represented far-sighted eyes in a state of transition from far-sightedness to near-sightedness.

It has been found that the far-sighted eye complicated with astigmatism is much more prone to

change into the near-sighted eye than the far-sighted eye not so complicated; so the influence of astigmatism in initiating the myopic process is a very definite one.

As Risley puts it, "the tender, readily yielding sclerotic coat of childhood yields to increased pressure from within; the eyeball stretches and passes from far-sighted refraction to near-sighted."

American investigators have confirmed Cohn's statistics and have found that there is a continuous progression in the percentage of near-sight as we pass from the lower to the higher grades. This alteration in the shape of the eyeball is so frequently accompanied by changes in the deeper coats of the eye that the near-sighted eye can only be regarded as a diseased eye. Thus Erismann, in an examination of 1,245 short-sighted pupils in St. Petersburg, found only 5 per cent. free from pathological changes in the choroid.

It happens occasionally that one or more of the muscles which move the eyeball are improperly placed, or partially paralyzed. To overcome the resulting double vision, a child will assume various bizarre attitudes.

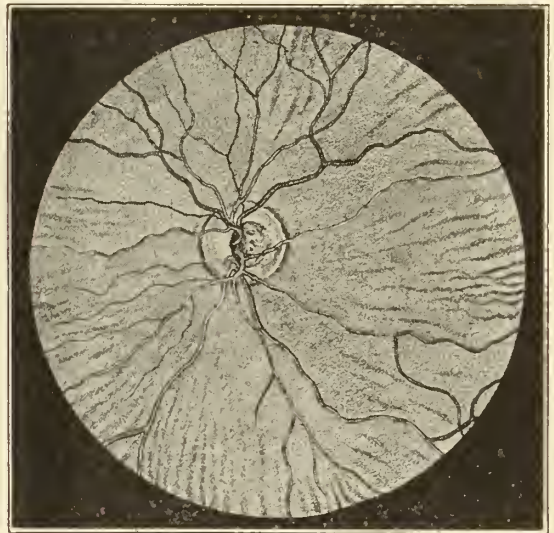


Figure 13.

This photograph (Fig. 9) is of a little boy suffering from a paralysis of the inferior muscle of the right eye. Note how the head is dropped forward and toward the right. The next picture (Fig. 10) shows how head tilting may be due to vertical deviation of one eye. These physical deformities may become permanent unless proper treatment (usually operation on the eye muscles) is instituted.

I desire to allude briefly to a few external and internal diseases of the eye which are a serious menace to the eyesight of children.

Figure 11 shows a child suffering from the so-called phlyctenular disease of the cornea. It is enormously prevalent in the crowded tenement districts and appears to bear a close relation to tuberculosis, if, indeed, it is not actually a manifestation of the disease. Precisely those conditions of overcrowding, vitiated air and insufficient food which accompany the histories of our tuberculous patients, are found surrounding these sore-eyed children. The danger is that the ulcerative process which begins at the margin of the cornea, may invade the pupillary area. Healing eventually ensues, but leaves vision blurred and distorted, and too often glasses are of no avail.

Another inflammatory disease of the anterior portion of the eye is trachoma or granulated lids (Fig. 12). I have been convinced for a number of years that this disease, which is the terrible scourge of Egypt, and is the most prolific cause of blindness in that country, is on the increase in

he is in danger of losing all chance for an education. London has met this problem by the establishment of the so-called trachoma schools. The trachomatous children are housed in cottages under the charge of a house-mother and continue their education while receiving daily treatment from specialists. Perhaps in time we may awaken to the necessity of a similar establishment.

Figure 13 represents the appearance of the back of the eye as viewed with a little perforated mirror known as the ophthalmoscope. Defective sight sometimes occurs from disease of the retina and chorioid, while the anterior part of the eye appears normal.

Having considered refractive and muscular anomalies, and certain external and internal diseases of the eye occasioning impaired vision, let

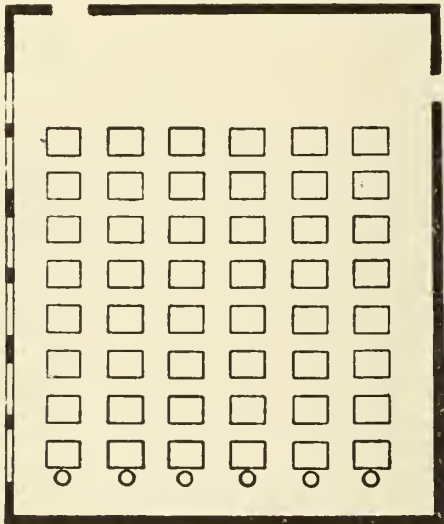


Figure 14.



Figure 15.

this state, and have asked the State Medical Association to conduct an investigation as to its prevalence. Although trachoma is positively contagious, being conveyed by means of handkerchiefs, towels, wash-rags and other linen from diseased to sound eyes, it is not listed by the state or any county or city board of health as a contagious disease. The result of this short-sighted policy is that many of our school children have the disease, and, but for the care of the medical inspectors in debarring such children from the schools, would be continually infecting their schoolmates. Dr. Stewart informs me that out of a total of 21,930 children in the inspected schools, 223 cases of trachoma were discovered.

The problem of the trachoma child is a serious one. Debarred by the inspector from the schools, during the only years when education is possible,

us briefly consider some of the conditions of school-life which affect the eye-sight.

First, as to the school-room itself. Figure 14 illustrates the dimensions and desk arrangement of a school-room approved by school-hygienists. This room measures 30 by 25, is 13 feet high, and is equipped with forty-eight desks. A simple calculation will show that with the school-room fully occupied, each child will have 15 square feet of floor space, and 200 cubic feet of air space. The windows to the left of the pupils contain transparent glass surface, the area of which is at least one-sixth of the floor space. If the illumination is to the right, the child will assume uncouth and irregular attitudes in writing to avoid

the shadow of the hand. The illumination may be said to be sufficient if diamond type can be read without strain at twelve inches in any part of the room. The windows should be set with the least possible space between to avoid alternate zones of light and shade. The walls should be tinted a light green gray. The ceiling should be white. The windows should be furnished with



Figure 16.

opaque shades, of a somewhat darker tone than the wall color. The blackboards (of strong black slate) should be placed behind the teacher and on the wall opposite the windows.

Seats and desks should be "fitted" to each child—which means that each desk and seat must be vertically adjustable. Figure 15 illustrates the

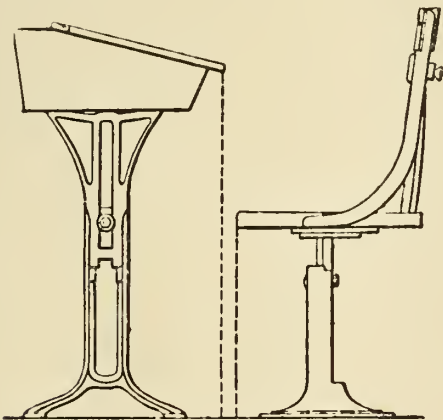


Figure 17.

easy and unconstrained posture of a child properly seated. The height of the seat should be equal to the distance from the bend of the knee to the sole of the foot. With the pupil seated, the desk is adjusted to permit the forearm of the

pupil to rest lightly on it without raising the shoulder while in the act of writing. The slope of the desk should be fifteen degrees.

Figure 16 illustrates the distortion of the body while working at too high a desk. The shoulders are forced upward, the head is twisted to the left

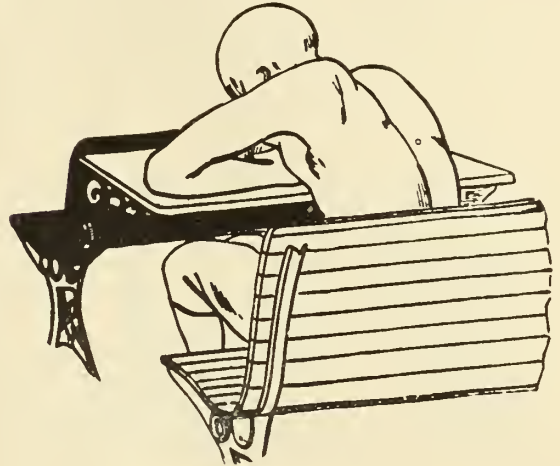


Figure 18.

and one eye is brought nearer the work than the other, a posture favoring the development of near-sightedness.

Figure 17 illustrates the so-called plus horizontal distance. When the horizontal distance is plus, a line dropped from the edge of the desk will fall in front of the front edge of the seat. This arrangement is faulty, as it necessitates leaning forward (Fig. 18) with consequent com-

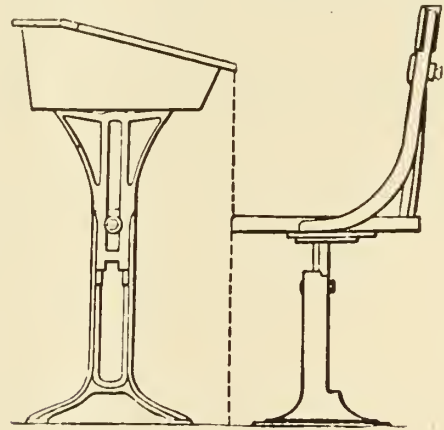


Figure 19.

pression of the abdomen and thorax, and obstruction to the return of venous blood from the head. Note that the eyes are brought much too near the desk top, a position requiring the use of almost all the focussing power and favoring the development of near-sightedness. When a line dropped from the edge of the desk touches the front edge of the seat, the horizontal distance is zero (Fig.

19). This and the "minus" horizontal distance conduce to a more correct posture.

School books should be printed in type of the proper size. Cohn demanded that the height of the "n" should be at least 1.5 mm., and its down-stroke .25mm. thick. The smallest interlineage permissible between non-loop letters should be 2.5 mm. and the greatest length of line should be 10 cm.—4 inches. In the first grade the height of the "n" shall be 2.6 mm. with 4.5 mm. inter-

ing of our schools should not be foremost to institute all measures which shall prevent the development of backwardness in children. In the case of backwardness due to defective eye-sight, the means of prevention are at hand and are so simple of execution that no excuse is legitimate for not putting them into effect.

To Dr. Frank Allport, of Chicago, is due the credit for having evolved a simple means of detecting most cases of defective eye-sight without the necessity of medical assistance (Fig. 20). His plan has received the approval of many school boards and in some states, e. g., Vermont, Connecticut and Massachusetts, is made obligatory by statute. At the beginning of each term the teacher tests privately and singly the vision of each eye of each pupil at a distance of 20 feet, recording the result. At the same time a few simple facts regarding the eyes of children whose distant vision is perfect are ascertained, so that most cases of far-sightedness are detected.

The following card of warning signed by the teacher is sent to the parents of all children suspected of ocular defect. "After due consideration, it is believed that your child has some eye defect for which your family physician, or some specialist, should be at once consulted. It is earnestly requested that this matter be not neglected."

The value of such tests is indubitable. To take an example near home, it was my good fortune to persuade my fellow members of the School Board of University City to institute these tests at the beginning of the school year. Of 224 children examined in the grade schools of University City, ninety, or 40 per cent., had subnormal vision in one or both eyes; thirty-seven, or 16 per cent., showed undoubted symptoms of eye-strain. If the proportion holds true in the city schools with an enrolment of upward of 75,000, there must be at least 12,000 children in need of ophthalmic attention of one sort or another. It should be remarked that on this question the school hygienists are entirely in accord with the oculists.

Let me conclude, therefore, by quoting a paragraph from a little book on "School Hygiene," by Edward L. Shaw:

"School-life impairs more or less the eye-sight of the greater number of those who pass through its grades. Our progressive civilization seems destined to tax the eyes to a still greater degree in the future than even in the present, if we may judge from the growing demands of the past. The school is therefore culpable if it, through disregard or even through neglect, fails to use every means and to take every precaution against impairing the eye-sight of pupils."

625 Metropolitan Building.

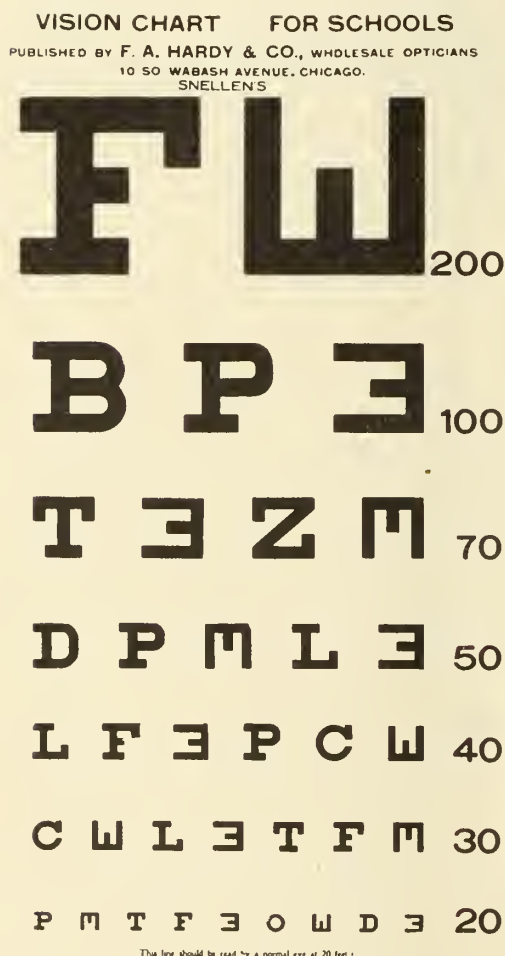


Figure 20.

lineage. Letters placed on the blackboard should be not less than $1\frac{3}{4}$ inches high and should be larger for the lower grades. School books should be printed on opaque, unglazed cream paper.

I think you will agree with me that the conditions inherent in children's eyes, coupled with the many deleterious influences to eye-sight arising out of various external conditions of school-life, place on the school a grave responsibility. In an age whose motto is "prevention," it is little less than criminal that those who have the order-

THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

JANUARY, 1913

EDITORIALS

THE STATE, THE MEDICAL PROFESSION AND PUBLIC HEALTH

The change in the political control of the state was regarded by the organized medical profession as presenting an opportunity for introducing certain reform measures in the administration of the state health agencies that would lift Missouri to the rank of states that have thrown off the shackles of medievalism and caught step with the advanced thought and practice of to-day in the conservation of human life and health. In expectation of meeting a similar spirit of progress on the part of the newly elected governor, the executive officers of the state medical association early expressed their desire for a conference for the purpose of conveying to him the views of the organized medical profession in relation to the problems affecting the health of the people and the care of the state's wards.

The reply to this letter, signed by the governor's secretary, stated that the matter would have attention on Mr. Major's return to the capital, he being absent at that time. After several weeks of silence the state association officers addressed another communication to the governor-elect, renewing the request for a conference and stating somewhat in detail the subjects which they desired to discuss with him, namely: (1) Appointments to positions affecting the health of the people should be made in the interests of the sick and afflicted wards of the state and for the benefit of the whole people. (2) Appointments to public institutions for the care and treatment of the insane and defective should be made from among those whose qualifications and experience fitted them to assume such responsibilities. (3) Boards of managers of eleemosynary institutions should have the benefit of the advice of a member who was a properly qualified medical man. (4) The appointment of bipartisan boards and the introduction of civil service, in connection with state health agencies, was strongly advocated. (5) Finally, the assistance, advice, cooperation and influence of the organized medical profession were placed at his command as a means of safeguarding the health of the people and of avoiding the scandals which had developed in our institutions in the past.

To this communication, Mr. Major replied that he was not making any appointments for conferences with anyone until after the first of the year; that after he had been sworn in as Governor he would be glad to talk with the officers of the association, but that he had made up his mind as to most of the positions to be filled.

The insistent and growing cry of the people for the abolition of obsolete and degrading methods of dealing with state health problems, and the evolutional and radical developments in medicine for the better care of the sick and afflicted and the control and prevention of disease, cannot longer be ignored by state governments in dealing with public health questions. The medical profession is a quasi-public body charged with the duty of correcting and preventing disease, and is held strictly accountable for negligence and incompetency in practice. The profession has demonstrated its philanthropic, humanitarian and unselfish devotion to the health interests of the state and asked no reward; it does ask, however, and feels that it has a right to demand, that when the state health agencies are being rehabilitated, the advice and assistance of the organized medical profession should be sought, since it alone is competent to pass on the fitness and qualifications of proposed appointees to positions affecting the health and lives of the citizens.

The officers of the organized medical profession, representing the large body of reputable physicians composing this association, in view of the above, declare that the medical profession will not hold themselves in any way responsible for the conduct of the eleemosynary institutions and other state health agencies, if the objectionable features of the policies of the past govern the making of such appointments.

We do not at this time know the character and qualifications of the appointees Governor Major has decided on. We hope they will be such as can receive the indorsement of the medical profession; but should it prove otherwise, the medical organization will have placed itself on record as definitely opposed to a continuance of the system of exploiting state health institutions for political aggrandizement; and we will be exonerated in the eyes of the people from any blame that may attach to their administration during the next four years.

THE OPTOMETRY BILL

At this session of the legislature it is quite certain that several bills will be introduced which will invite the special attention of the medical profession. Probably the most important of these is the Optometry Bill.

The opticians have constructed a proposed bill which seems to be innocent of any attempt to give spectacle-fitters the right to call themselves doctors, in a medical sense. This assurance has led some physicians into the trap of signing a peti-

tion approving the bill, while at least one member of our association has written a letter indorsing the measure. This letter was a purely personal communication and expressed only the personal views of its author; it did not in any wise reflect the sentiment nor the opinion of the medical profession. The opticians have published and republished this letter along with their bill and spread the information that the organized medical profession has withdrawn its opposition to optometry and would not antagonize the passage of the bill.

The organized medical profession is opposed to the passage of any optometry bill, being convinced that such legislation is contrary to the best interests of the public health. This unfriendly attitude is not based on the narrow conception that optometrists would become dangerous commercial and professional competitors of the physician financially; such a view disappears immediately when the public spirited endeavors of the medical profession toward the prevention of disease are remembered. The opposition is founded only on the broad basic principle that the alleviation of disease and the correction of abnormalities in the human should be intrusted only to those persons who have by years of preparative study and comprehensive examination proved themselves qualified to fulfil the obligations laid on them by statute.

Members of the medical profession and legislators should not be misled by the fallacious arguments of those opticians who are clamoring for legal recognition of their trade. The sentiment among the conservative and most competent opticians is against the passage of such a law. Optometrists realize that no prohibitive clause in the statute would prevent the further invasion of the medical field after they have been given statutory rights to correct any single abnormal condition of the body or to tinker with any one of its organs. Optometrists teach, or attempt to teach, the treatment of many pathological conditions of the eye which are amenable to medical and surgical measures only, and cannot be corrected by glasses. Numerous instances can be adduced to verify the assertion that the meddlesomeness of ambitious opticians has resulted in irreparable damage to sight and even of total loss of vision in eyes that might have been saved by the intelligent attention of a capable oculist.

Every county medical society should take immediate action to oppose this bill, and instruct members to bring every influence to bear on representatives and senators to refuse to legalize the practice of optometry in this state, or give state sanction to any cult to tamper with the abnormalities of the human body, without first being grounded in the principles of scientific medicine. Several county societies have voted against an optometry law. We publish the resolutions below.

THE DEFECTIVE CHILD

Eugenics, a new department in social science, which is commanding great attention and developing much thought and action, not only among the intelligent laity and special social workers, but also in the rank and file of the medical profession, is a field which embraces all the different factors accounting for defects in the child, in its physical, mental and moral development.

Child-study has engaged the attention of educators and scientists for many years, but these investigations were never crystallized and specialized to the extent of a distinct science until the last decade. This study considers the influence of heredity and environment, the careful analysis of acquired and congenital characteristics, of physical defects, of pathological and psychological data, of social conditions, of educational and of all other factors which may influence an abnormal status in the child.

At the annual meeting of the National Educational Association in St. Louis, May, 1912, where representatives of all the important educational institutions were active, the question of the defective child, his proper disposal and his segregation, was one of the most important topics for discussion. Much of the data and information necessary for an intelligent comprehension of this question by the layman can be furnished only by the medical profession, and we should cheerfully and energetically assume our share of the work to stimulate investigation which will help solve these complicated questions.

Every member of the medical profession has civic obligations which, when called on, he should actively discharge. The St. Louis Medical Society, in recognition of this civic obligation, recently arranged for an extensive symposium on "The Defective Child" that has proved so successful in its presentation that other communities and organizations were stimulated to follow this practical example.

The series of symposia were arranged by a special committee of the St. Louis Medical Society at the suggestion of Dr. M. A. Goldstein, and occupied three full sessions of the society. The essayists selected to present this subject-matter were asked to prepare their papers in a popular form, and to eliminate, as much as possible, purely medical technicalities. Special invitations to these meetings were issued not only to the members of the medical society, but also to that class of the laity especially interested in child-welfare work and communal progress. The Superintendent of Public Instruction, the members of the Board of Education, the principals of all the public schools and teachers in the special schools of St. Louis, the officials and members of the various organizations represented in the Child-Welfare Association, the judges and officials of the Juvenile Court, the presidents of St.

Louis, Washington and Missouri State Universities, the superintendents of the state institutions for the deaf, the blind and the mental defectives, and the prominent charity workers and civic representatives were invited to attend these sessions.

If the thoughts, energies and good-will offered by the several essayists, who have so enthusiastically advanced this program, will produce their just reward, another step in the development of this important phase of educational and communal endeavor will have been taken. There seems to be a constantly growing interest in the problems that confront us concerning the care and proper disposal of the defective child. Statistics corroborate the assertion of the tremendous increase in the defects of sight, speech and hearing, and in the mental and physical infirmities of the American child, and it is not only opportune, but vitally imperative that the medical fraternity cooperate with educators, with social and charity workers, and with all others of the laity who are beginning to realize the responsibilities of this serious question.

The special committee having in charge the publication of this interesting series of papers arranged with the editor of THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION for its publication *in toto*, and it appears here as the first extensive and comprehensive monograph on this subject published in America under the auspices of an influential medical society.

As presented in the official organ of the Missouri State Medical Association, it should be carefully read by every doctor in the state. Arrangements have also been made for placing copies of these collective monographs in the hands of every school superintendent, special teacher and professional worker in Missouri.

We hope this contribution of the St. Louis Medical Society to the cause of eugenics will develop new energies and stimulate work in this important field, and that it will be of interest not only in our community, but that it may assist in developing influences of national importance.

Community, state and nation owe the defective child a serious debt which, as yet, has been but poorly paid. The education of the defective child is an *obligation* and *not a charity*. The necessity for prompt and effective measures to check the destructive influences that threaten to undermine the health and intelligence of the nation is apparent.

EMPLOYERS' LIABILITY INSURANCE AND PHYSICIANS' FEES

We are informed that an employers' liability bill will be introduced at the coming session of the legislature. This bill will probably be modeled after the law now in force in Kansas and in some other states. It will provide among other

things, that the employer must arrange for the payment of hospital and physician's bills for services rendered the injured person.

It is becoming the habit with corporations and insurance companies to fix for the physician the amount of fees that may be charged for emergency service to injured persons insured by them. This bill should be closely watched and a determined demand made that professional services shall be recompensed according to their value and not according to the arbitrary scale fixed by insurance companies.

MISCELLANY

OPPOSITION TO OPTOMETRY LAW IN MISSOURI

Resolutions have been adopted by a number of county medical societies opposing the passage of the proposed optometry bill. The Rolla District Medical Society was the first to condemn the measure by resolution and the Jackson County Medical Society immediately approved them and issued a circular letter to all its members and others in the state. The letter and resolutions follow:

Dear Doctor:—In enclosing the accompanying resolutions to you adopted by the Rolla District Medical Society, we wish to indorse them to the fullest degree and to ask your cooperation in defeating the bill which the opticians are seeking to have enacted into law.

The medical profession of this county, acting through its organized society, deeply deplores the efforts the opticians are making to secure legal permission to practice medicine without undergoing the formality of securing a medical education. This is practically what the proposed legislation amounts to. Will you unite with us to see that no such vicious laws are placed on the statute books?

Please bring this to the attention of the members of the society and let your Representative know of your opposition to the measure.

With the compliments of the season, we remain,
Sincerely and fraternally yours,

J. W. SHERER,
C. W. GOSNEY,
A. W. McALESTER, Jr.,
625 Bryant Bldg.

Committee.

WHEREAS, It has come to the knowledge of this Society that a member of the regular medical profession of this state and an officer in the Missouri State Medical Association, Dr. John Green, Jr., of St. Louis, in a letter addressed to the secretary of the Missouri Optometry Association, which letter has been published and distributed to the public generally by the Optometry Association, has assisted and aided the opticians

and so-called optometrists of St. Louis, in their efforts to obtain legal recognition in this state as a special branch of medical practice, to-wit, the fitting of glasses for the correction of imperfect vision, and

WHEREAS, Such written indorsement and support by Dr. Green, have been beralled by the opticians as indicative of the approval of the organized medical profession of the bill prepared and proposed to be introduced in the next session of the legislature to legalize optometry in this state, thereby causing to be published a false and erroneous impression of the attitude of the medical profession toward this character of legislation: therefore be it

Resolved, That the Rolla District Medical Society condemns such act of Dr. Green and declares it to be derogatory to the good of the organized profession and the body politic, and be it further

Resolved, That these resolutions be spread on the minutes of this society and a copy sent to the Chairman of the Judicial Council of the Missouri State Medical Association.

The Moniteau County Medical Society adopted the following resolutions, while similar action has been taken by Crawford County, Pulaski County, Boone County and Vernon County Medical Societies. The Moniteau County resolutions follow:

WHEREAS, The Missouri Association of Optometrists has sent a pamphlet containing a proposed optometry law for Missouri, which pamphlet contains a letter from Dr. John Green, Jr., of St. Louis, a member and an officer of the Missouri State Medical Association, indorsing the proposed optometry bill, and

WHEREAS, The advocates of the proposed law had used this indorsement by Dr. Green for the purpose of disseminating the belief that the Missouri State Medical Association also indorses the proposed law, and

WHEREAS, The Missouri State Medical Association at the meetings held in 1909 and 1911, through its proper committee, declared its opposition to such a law, and

WHEREAS, We believe that all those desiring to practice optometry should qualify themselves in general medicine before they practice a specialty and should submit to the same examinations as regular physicians, therefore be it

Resolved, That the Moniteau Medical Society hereby expresses its opposition to any optometry law and we condemn, as in our opinion unauthorized, the indorsement of Dr. Green. Be it further

Resolved, That the Secretary be instructed to send a copy of this condemnatory resolution to the chairman of the judicial council of the state association and to the president of the St. Louis Medical Society of which Dr. Green is a member, and that they be published in the JOURNAL.

J. P. BURKE, JR., President.

L. L. LATHAM, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief description of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Ave., Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

NOVATOPHAN is ethyl 6-methyl-2-phenyl-quinolin-4-carboxylate, $\text{CH}_3\text{C}_6\text{H}_4\text{N}(\text{C}_6\text{H}_5)\text{COOC}_2\text{H}_5$, 6:2:4, the ethyl ester of paratophan. It is a crystalline, tasteless powder, insoluble in water. Its action is the same as that of atophan from which it differs only in being tasteless. It is also furnished in the form of Novatophan Tablets, 0.5 gm. ($7\frac{1}{2}$ grains). Schering & Glatz, New York (*Jour. A. M. A.*, Nov. 30, 1912, p. 1971).

HEXAL is hexamethylenamin salicylsulphonic acid, $(\text{CH}_2)_6\text{N}_4\text{C}_6\text{H}_5(\text{OH})\text{COOH}\cdot\text{HSO}_3$. It is a white crystalline powder, soluble in water. It is a weak combination of hexamethylenamin and salicylsulphonic acid. It is claimed to have the action of hexamethylenamin combined with an anesthetic and astringent action on the inflamed mucous membranes of the biliary passages and urinary bladder, without having a deleterious effect on the bladder walls. Claimed to be useful in chronic inflammation of the bladder, posterior urethritis, etc. It is also furnished in the form of Hexal Tablets, 0.5 gm. ($7\frac{1}{2}$ grains). Riedel & Co., New York (*Jour. A. M. A.*, Nov. 30, 1912, p. 1971).

GLYCOTAURO, BILE SALTS. H. W. & Co., is concentrated ox bile, freed from bile pigments, each gram representing approximately 10 c.c. of fresh ox bile. It is a soft, semi-solid mass of bile-like odor and slightly bitter taste. Its actions and uses are those of bile salts. It is marketed in the form of Glycotauro Capsules, 5 gr. and Glycotauro Pills, 1 gr. Hynson, Westcott & Co., Baltimore, Md. (*Jour. A. M. A.*, Dec. 7, 1912, p. 2066).

MERCURIAL OINTMENT, IMPROVED, MULFORD, is an ointment containing 50 per cent. of metallic mercury in an ointment base consisting of anhydrous wool-fat, petrolatum and stearin, aromatized. Its actions and uses are the same as mercurial ointment, U. S. P., but it is devoid of the unpleasant odor of the official preparation and is said to be more readily absorbed. It is marketed in the form of Capsules Mercurial Ointment, Improved, Mulford, 30 grains, and Capsules Mercurial Ointment, Improved, Mulford, 60 grains. H. K. Mulford & Co., Philadelphia, Pa. (*Jour. A. M. A.*, Dec. 7, 1912, p. 2066).

CYCLOFORM, isobutyl para-aminobenzoate, is 2-methyl-propyl-4-amino-benzoate, $\text{C}_6\text{H}_4(\text{NH}_2)\text{COO}\cdot\text{CH}_2\cdot\text{CH}(\text{CH}_3)_2$. It is closely related to anesthesin (ethyl aminobenzoate) and propaesin (propyl aminobenzoate). It is an odorless, crystalline powder, soluble in olive oil and only slightly soluble in water. Said to act on wound surfaces or mucous membranes as a superficial and prolonged anesthetic and as a mild antiseptic. Used as a dusting powder, 5 to 20 per cent. ointments, in suppositories and internally in doses of 0.1 gm. to 0.2 gm. ($1\frac{1}{2}$ to 3 grains). Farbenfabriken of Elberfeld Co., New York (*Jour. A. M. A.*, Dec. 14, 1912, p. 2150).

REFORM IN MEDICINES

THE ANTISEPTIC ACTION OF HEXAMETHYLENAMIN.—The antiseptic action of hexamethylenamin seems to be due solely to the liberation of formaldehyd. This liberation is proportional to the concentration of the drug and therefore to the dose; and in the urine at least, inversely proportional to the quantity of urine. The liberation is most active in acid urines; but it may occur to a limited extent even if the reaction is alkaline; not, however, in the presence of free ammonia. The chemical and clinical data as to the liberation of hexamethylenamin is insufficient. The bacteriological results show that the administration of hexamethylenamin prevents the putrefaction of acid urine, that it has a much smaller effect on alkaline urine and that it confers a marked bactericidal effect on bile, and a distinct, but limited antiseptic effect on cerebrospinal fluid (*Jour. A. M. A.*, Nov. 30, 1912, p. 1989).

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ORIGINAL ARTICLES

QUADRICEPS TRANSPLANTATION IN PARALYSIS

ARTHUR E. HERTZLER, M.D.
KANSAS CITY, MO.

The quadriceps, though it is not one of the more frequently involved muscles in anterior poliomyelitis, has yet been the subject of transplantation in a number of instances in the hands of German surgeons. In a cursory search through American literature I have failed to find more than a few references to this operation. A single experience in quadriceps transplantation may therefore be not without interest.

History.—School girl aged 15. Family history negative. Oct. 15, 1908, patient came home from school feeling sick. There had been some indisposition several days previously. She staid out of school the next three days but did not go to bed. On the third day of her vacation, in trying to walk, she fell and it was discovered that control of the legs was impaired. She seemed at this time to have a little fever. In the next few days she grew progressively weaker and was unable to feed herself. On the sixth day her physician reported 2.2 degrees of fever. Severe pain and drawing in the back and legs began on this day and by the day following she was entirely paralyzed in both arms and legs. After this the pains became gradually less but returned, at intervals, for a week requiring hypodermics of morphin. Some motion appeared in the hands after a few days and became fairly free at the end of two weeks. The feet and legs began to have some power of movement the following winter. The mind was not affected at any time nor was there any disturbance of the bladder and rectum.

When examined Oct. 8, 1911, her limbs gave the following measurements: left arm, 10½ inches; right arm, 9½ inches; left forearm, 8 inches; right forearm, 8 inches; left thigh below gluteal fold, 21½ inches; right thigh below gluteal fold, 23 inches; left thigh 4 inches above condyles, 14½ inches; right thigh 4 inches above condyles, 15 inches; left calf, 11 inches; right calf, 13 inches.

The left foot moves moderately in dorsal flexion and external rotation, the peronei being partly preserved. There is no flexion or extension of the leg on the thigh, both the quadriceps and hamstrings and associated muscles being involved. The right leg shows

some extension but is slow and weak. Flexion is normal. Extension of the foot (gastrocnemius) is fairly strong but dorsal flexion (tibialis anticus) is absent. In the left arm flexion (biceps) is fairly strong. The patient can raise her hand above her head by bringing it over the face—making the biceps substitute for the deltoid. Extension (triceps) is very weak. The right arm has less forearm flexion (biceps) than the left but extension (triceps) is better. Her grasp is very weak but she is able to feed herself and can write.

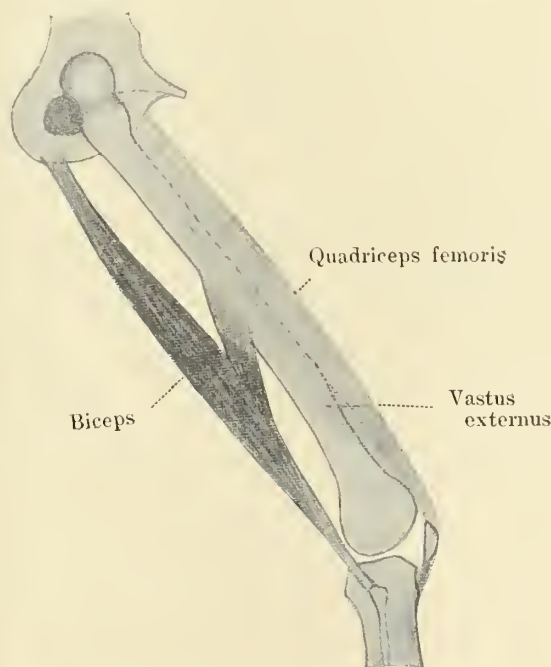


Fig. 1.—Showing the relative attachments of the two heads of the biceps. (Reproduced from Krause.)

There is a left-sided scoliosis of about 3 inches. Sensation as to pain, touch and temperature was not affected. Abdominal reflexes were uncertain and none of the reflexes in the extremities could be elicited.

Of all the muscles on the right side the hamstrings alone presented anything approaching a normal tone. Because of the two years spent in bed both knees were flexed to 45 degrees. On the left side there was no power of extension or flexion but on the right side there was feeble extension a short distance probably

from action of the sartorius, but flexion, as stated, was strong. The difficulties were much enhanced by an excessive development of adipose tissue.

The case might properly be regarded as hopeless. The only possibility of improvement lay in bringing the hamstrings to the aid of the paralyzed quadriceps in the right leg. It was hoped if a good extension could be secured in the right leg that by using a splint to hold the left leg rigid, the patient might be able to walk with the aid of crutches.

With this rather faint hope in mind, Krause's operation of engrafting the flexors of the calf on the

pulled through this opening and attached temporarily to the side of the quadriceps tendon through the opening on the top of the thigh previously made. This gives nearly a direct pull for this muscle (Fig. 2). The semi-tendinous and semi-membranous were then freed in like manner and their tendons separated from their insertions into the tibia. The gracilis likewise was freed and its tendon loosened. Owing to the presence of large vessels in this region the vastus internus was not separated from the bone but was perforated about the middle of the substance of its belly (Fig. 3). These tendons and muscles were all brought through the opening thus made and made to approach the patella. The sartorius was severed through the upper incision. Owing to the fragility of the quadriceps tendon the attachment of the several tendons was made direct to the patella itself (Fig. 3).

In my case the operation as described by Krause was carried out except that the biceps and semi-membranous alone were transplanted. The semi-membranous was not made to perforate the vastus internus because it was thought, on account of the atrophied condition of the muscle, the tendon would pass over it without loss of mechanical power. This was an error for even though the vastus internus was much atrophied the tendon was placed at a distinct mechanical disadvantage. The wound was closed without drainage and the leg placed on a posterior-board splint.

The result was satisfactory so far as the operation itself was concerned inasmuch as the patient had the

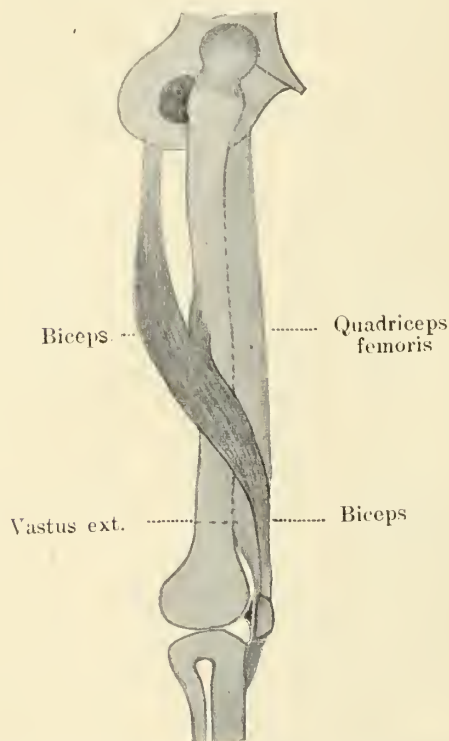


Fig. 2.—Showing the proper place for perforation of the vastus ext. by the biceps tendon. (Reproduced from Krause.)

quadriceps tendon and patella was done. In his first cases Krause¹ transferred the biceps, semi-membranous, semi-tendinous, gracilis and sartorius. Subsequent operators² have modified the number of tendons transplanted according to conditions present. The general tendency among operators is to leave one of the flexors, usually the semi-tendinous, to produce flexion of the leg on the thigh and to prevent recurvation of the knee. The gastrocnemius heads, together with the popliteus, are capable of producing a feeble flexion of the leg, but a preservation of one of the flexors is advised by most operators.

The operation as performed by Krause is as follows: He made an incision 17 cm. long, beginning in the popliteal space and continued upward. The biceps was loosened, with precautions as to preservation of the vessels and nerves, up to about midway of the thigh, as far as the insertion of the short head (Fig. 1). The tendon was then severed from its attachment to the fibula. An incision was then made beginning at the patella and extending 17 cm. along the top of the thigh. An opening was then made for the passage of the tendon and belly of the muscle already loosened by separating the body of the vastus externus from the femur (Fig. 3). The tendon of the biceps was now

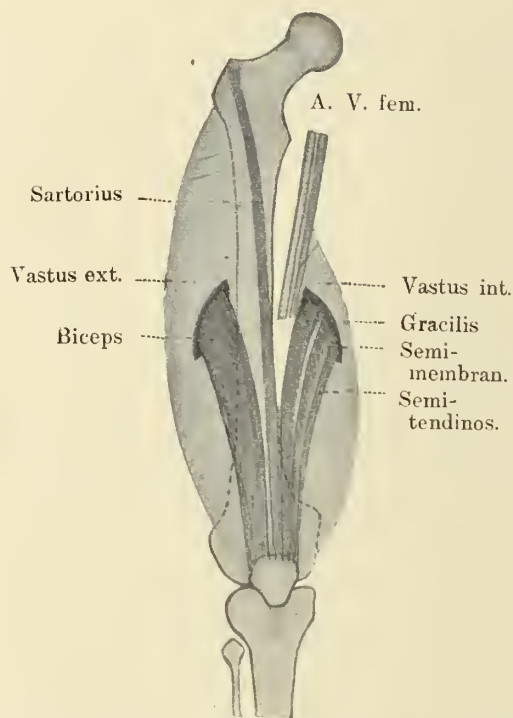


Fig. 3.—Showing the perforation of the vasti by the transplanted tendons and their attachment to the patella. (Reproduced from Krause.)

power of extending her leg. Because of a total paralysis of the left leg a splint was necessary to stiffen it. With this aid the patient was able to stand unaided. Because of the extensive involvement of the arm muscles crutches can up to the present time be managed with difficulty and walking unaided is not possible. It is hoped that with exercise the arms may gain additional power and enable the patient to use her crutches with better advantage.

1. Deutsch. med. Wchnschr., 1902, xxviii, 118-135.
2. Naegeli: Ztschr. f. Orthoped. Chir., xxi.

The experience in this case, though unsatisfactory in a way, owing to the severity of the associated lesions, is sufficient to convince me of the utility of the operation. That the operation is capable of yielding satisfactory results had already of course been demonstrated by a number of German surgeons, notably by Hoffa (*Archiv f. klin. Chir.*, 1906, lxxxi, 455) and Boecker (*Archiv f. klin. Chir.*, 1909, xci, 242). From the cases recorded by these surgeons and others it appears that when the quadriceps alone is involved a transplantation as advised by Krause, or some modification of it, is capable of restoring nearly complete function in many cases, and is certain to produce improvement in any case. When there are other muscles involved, as paralysis of the tibialis anticus, the results are less satisfactory, but still usually good.

Rialto Building.

THE DANGERS OF SPECIALTIES *

E. H. MILLER, M.D.

LIBERTY, MO.

In offering these few remarks on a subject that so often has presented itself to me during my thirty-eight years of practice, I do not throw one stone in the road of progressive medicine or regional practice, for these are essential for best serving our fellow men. And regional study and its application in our daily practice has placed our profession in the high position it occupies among the professions of life. This same principle is true in the mechanical world everywhere. It is from special workers in the different avenues of life that the greatest achievements have been consummated and from them the world's wonders have been launched to bring joy and pleasure to mankind and to lessen the toils and burdens of the toilers.

Each branch of the mechanical world seems to be a world within itself, and its students constitute a household within themselves. Yet back of all the principles, that underlie each invention or discovery, have for their foundations the same fixed and unchangeable scientific rules and principles.

The national world must in its varied departments, all essential to the life and welfare of the nation, have special minds and heads of departments, to deal with the individual conditions as they arise, and special study and special study alone can steer the ship of state through the different emergencies that arise, and we supinely leave to them every national issue, knowing that special study and application have fitted them for

the task before them. Yet behind it all there must be some firm foundation and a thorough knowledge of the nation's needs together with a study of all the issues, or the specialty will get into grooves—get narrow and contracted, and ruin must follow. A knowledge of no one branch of our political economy, however minute or thorough one's study of the same, can save a nation without all its varied interests are looked after in the application of the specialty.

When I speak of the danger of specialties, you will please remember that my life-long work has been in the rural homes and among rural physicians, and the danger, if there be any, must be in the influence special study and preparation have on us and the homes we have charge of. I will not dwell on the difference in rural and city practice and the close relation that exists between the old home doctor and his charges, for that is useless. But it is this charge and perfect resignation to the dictum of the family physician that causes one to stop and think whether we are worthy of the charge.

Every young physician, when he starts in life, has his ideal, and that ideal is some noted specialist, whether that ideal is chosen for his pecuniary success or his reputation; and all his energies are spurred in that direction. The spare hours only are given to the study of the fundamental principles, the ground-work of our professional life without which true diagnosis is impossible.

It is true he has to stand examinations in all the varied branches before he is given a license to practice, yet in all these examinations one can see that knowledge in some special line stands out plain, and in comparison other branches are but meagerly known.

This would be all right and so far as his specialty is concerned it is proper, if it were at once possible to devote himself entirely to that line of practice and had means to enable him to await the coming of patients. But usually this is not the case, for nine out of ten young physicians locate in some rural city or village until age and pecuniary conditions enable them to seek larger and more lucrative cities, when they at once launch out in their favorite specialties.

Now see what often happens during these first years, thrust as the young physician is into general practice. With cases involving every organ in the body, he is implicitly trusted by his patrons with the lives of those near and dear to them. Now I wonder sometimes if he ought to accept these cases, when his every energy is centered on the preparation of his approaching special work.

Can't you see some danger in such a medical career, and while it sounds a little ugly yet I am sure I have seen some such conditions in the practice of medicine. Statistics on some diseases treated by the rural physicians are sometimes

* Read in the Medical Section of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting, held at Sedalia, May 21-23, 1912.

criticized. While sanitary surroundings are often to blame for some deaths, yet I fear a lack of study of the diseases of the whole body rather than local regions sometimes are to blame for the ending of some of our cases. In other words the general practitioner in the rural life is the grandest and noblest being known. But I fear the rural specialist intent on future city labors is a poor specimen of that being we all so much admire.

Now do not misunderstand me; I think every practitioner, by nature, is better adapted to treat some portion of the body than others, but I hardly think it proper to neglect the study of the other portions of the system because of this peculiar gift.

There is another danger to the longing rural specialist. As the lack of interest in general medicine lessens (his patrons see it oftener than ever dreamed of), soon his financial standing is diminished and he never reaches the point of his ambition. He feels like moving to a city and prosecuting his favored specialty, so one promising life at least is checked in its growth and another failure is added to the list. This one danger is no dream, but has been too often observed in contact with my rural colleagues.

The laity through our own words and acts magnify the sphere of our special brethren and minimize the ability of home talent, which is correct in a measure, unless the difference is made too pronounced and the home physician loses his individuality entirely.

I dislike to hear a physician advise the calling in of a *specialist* in consultation for any case he may be in doubt as to its diagnosis and treatment. This is too narrow, and by such a term he says, "I advise the turning over this poor, tottering body to a regional physician to ferret out the cause of the decline." Rather advise the calling in of a physician broad and thoroughly enough educated to discern disease of any portion of the body, and advise a remedy for the same.

The constant tendency of all is to be narrow and contracted in our ideas and to get into ruts, attributing almost every disease we come in contact with to disease of some special organ; and we advocate this belief so strongly and constantly that we become the laughing stock of our professional brethren. Nor is this overdrawn, for I have in my mind at present a case of epilepsy, with positive and unquestioned symptoms, treated by a surgeon for some past injury to the head from a slight blow leaving a slight scar of the scalp, after the same case had been treated by an oculist for eye-strain, giving this as the cause of her seizures; also she had been advised by a gynecologist to have the ovaries removed for the relief of the same attacks; and she was treated by a stomach specialist for three months, so sure was he that the exciting cause was located in that region. Dangers of specialties, that oftentimes

have caused lives to be sacrificed from the knowledge of these varied diagnoses of a neighborhood-known malady, and a failure to seek the advice of some true and hard student specialist, whose knowledge is based on a study of the human economy *in toto*.

I hope you see the drift of my narrative of the above case, for my regard is unbounded for those physicians in our cities who as a last resort have to treat many cases that have often been wrongly advised and at last come to them with life hanging by a single strand. But I do think that each physician ought to feel that his duty demands a supervision over every case referred to a specialist, and not leave it to the mercy of any one who does not know any of his or her idiosyncracies or peculiarities. It is the lifelong study and practice in a family that give the family physician a hold on the affections of the whole household, and oftentimes a knowledge of the nature of each one enables him to avert an approaching disease, or to know the remedies best suited for each, in case of accident or operative proceedings. And it is wrong to leave our patrons in the hands of anyone, however gifted he may be, and not offer the advice gained by contact of years or the study of each one from birth. This is one of the greatest dangers of specialties. Yet it could be so easily remedied if we would only think a little before we act. The consulted specialist is not to blame, as he would be only too glad to gain every knowledge he could concerning the patient. Yet we often turn them over and wash our hands of the whole case and think we have done our whole duty. The physician who does that does not know the true object and aim of our specialist friends, nor does he reap the reward he ought to from the consultation of such gifted men.

We can educate the community in which we live as to the proper sphere the specialist occupies in the medical profession, and hence the necessity for his services in many obscure cases; and on the other hand we can place our rural professional brethren on so low a plane by our lack of self-confidence that the community in which we live no longer looks to us for relief in times of epidemics and grave sickness. This danger is not the fault of the specialist, but the fault lies in a lack of study and research among our physicians and our lack of confidence in ourselves produced by this idleness, and the community soon sees the lack of skill in the home talent and acts accordingly. There are a few traits of youth that stick to us all through life. And I know of no vocation in life in which this is shown plainer than in the medical profession. It is truly said, "that the sons of the wealthy very seldom come to any good in manhood," for they know where to call for aid in distress and make no provision for rainy days, for the latchstring always hangs out for them at home.

How often does the young physician halt in his research for the intricacies of human life, leaving the harder problems unlearned, knowing the ability of a neighboring specialist who will help him in the hour of need. Danger ahead! For some day there will be no helping hand to guide him, and while groping in ignorance and doubt a life passes on. I ask what then? So you see there is some danger to us in special work, which multiply as we ponder over the labors of a country doctor's life. In fact, to briefly sum it all up, I think specialties are two-edged swords not to be played with by the superficial hands. Electricity, useful in many diseases, is a curse to humanity in the hands of a routine practitioner.

The microscope, the great discoverer of invisible agents, has revolutionized our system of pathology and treatment. Yet post-mortem examinations too often show how easy it is to follow its apparent positive conclusions along mistaken paths, until our faith is too often shaken in its certain conclusions. And so throughout the various branches of our professional labors we are forced to the conclusion that we must not trust to any one agent to lead us out of the tangled web that often envelops us at the sick-bed. But we ourselves must lay hold of the deep and firm foundation that anatomy, physiology and pathology ought to have built in our early life, and the proper therapy will surely follow.

To sum up our idea of specialties, we consider them our allies in the fight against disease.

In war, oftentimes a nation would be destroyed were it not for the timely interference of its allies—so in the medical world we oftentimes are at sea as to cause and results and we call on our ally, the specialist in the department best suited for our patient's trouble and by his aid we reestablish hope and bring our labors to a favorable end. Such as I have hurriedly and briefly presented are our views on the dangers and benefits of specialties.

KIDNEY FUNCTION TESTS*

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The operative removal of a kidney should not be undertaken without the knowledge, not only that there is a functioning kidney on the other side, but that it is capable of carrying on the work. (2) No operation of gravity should be undertaken in cases where there has been an interference with urinary excretion, as in obstructive prostate, without first determining the functional power of the kidneys. (3) There should

be some way, in disease processes interfering with the secretory power of the kidneys, by which the general practitioner may know the amount of crippling of the kidneys.

These three indications are met, at least to an extent greater than by any other method in use, by the phenolsulphonephthalein test, which is therefore valuable not only to the urologist, but also to the general surgeon and the general practitioner.

Many attempts to develop a test fulfilling these requirements had been made, but there had not been, up to the time of Rowntree and Gérahty's work along that line, any method applicable by the general practitioner for ascertaining the excretory power of the kidneys, except the urea estimation.

The urea test, as commonly done, is in several ways open to criticism. As a test for urea, pure and simple, it is faulty in that, in making the test, there is no means of telling how much of the liberated nitrogen is due to the breaking up of other nitrogenous compounds beside urea. This, however, is a minor matter in estimating the urea output, as the error is probably a fairly stable one.

The far greater error is inherent in the impossibility of fixing anything like an amount, either in percentage or daily output, to be considered normal. We do not know the "dose" of urea which the patient has to eliminate. This amount is so much dependent on matters of rest and exercise, diet, assimilation and on destructive disease processes outside of the kidney liberating by catabolism an undue amount of nitrogen, that the urea determination is rather the estimation of the amount of urea formed than an index of the excretory power of the kidneys. Thus, a small output of urea may simply mean a small intake of nitrogenous food or a lack of exercise.

The mere mechanical skill necessary in making the urea estimation with the old style Doremus ureameter, which is most frequently used, is by no means inconsiderable. From repeated tests checked by other methods, I think it safe to say that with the old Doremus, especially after the bulb of the pipette has become less resilient from lying about, not one in ten persons can get a correct reading, or can read the same urine the same way twice in three tests. Hinds' modification of the Doremus and Squibbs' apparatus remove some of this personal equation, but much care must be exercised and plenty of time (at least twenty minutes) should be given, to allow the reaction to become complete. The reagents should be frequently renewed lest they become inert. It is advisable to check apparatus and reagents occasionally with a solution of urca, say 3 per cent.

Besides the commonly used urea test, several other methods have been used to estimate kidney efficiency, but these have not come into general

* Read at the meeting of the North Missouri Medical Society, Kansas City, Oct. 17, 1912.

use. Cryoscopy has occupied a good deal of attention among investigators, but to give proper value to the findings requires that it be done by one with a great amount of technical skill. The test, in brief, consists in computing the amount of excreted matter in urine by finding the freezing point. The freezing point of normal urine is only fairly constant. It varies greatly in different individuals at different times, and simple causes, such as polyuria, will greatly reduce the freezing point. Cryoscopy is a valuable method of obtaining the molecular concentration of the urine, but in the estimation of the efficiency of the kidneys it will be found subject to the same limitations as the urea test, besides being infinitely more difficult.

Comparative cryoscopy of the blood and urine has been used to get information as to the functional power of the kidneys—the freezing point of the blood being lowered as the molecular concentration is raised by the presence of unexcreted waste products, and the freezing point of the urine being correspondingly raised owing to its lessened content of solids. This test is very cumbersome and has a large possibility of error even in the hands of trained laboratory men.

The phloridzin test has been used extensively in Europe. This test depends on the property of phloridzin in freshly prepared solution, injected subcutaneously, to bring about the appearance of sugar in the urine in the course of twenty to thirty minutes; the sugar remaining present for two or three hours. In diseased conditions of the kidneys the excretion of sugar is diminished or absent, or is much delayed in appearing. The phloridzin test has been found to be very inconstant. In some instances when given to perfectly normal individuals, no glycosuria has followed. According to Geraghty, it is oversensitive to slight renal changes and is liable to exaggerate the lesion.

In addition to the foregoing, there have been various colorimetric methods proposed for determining the excretory power of the kidneys, recommending the use, at different times, of the following substances: indigo-carmin, methylene-blue, rosaniline, carbol-fuchsin and phenolsulphonephthalein. The idea in the use of each of these substances is the same; namely, to inject a measured amount of the chosen drug into a vein, a muscle or subcutaneous tissue; to note the time of appearance in the urine; and furthermore, to estimate the total amount excreted in a given time by comparison of the color of the total amount excreted with the color of a solution of the dye of known strength.

These substances, though they are all easily recognizable in the urine, are, as indices, by no means equal in value. They do not equally lend themselves to color comparison.

Methylene-blue appears first in the urine as a chromogen at the end of about fifteen minutes.

It is necessary to boil the urine after the addition of a little acetic acid, to demonstrate this chromogen. The methylene-blue also undergoes unknown chemical change in the body, so that only about 50 per cent. of the amount given is normally excreted in the urine. Occasionally, even in health, the dye cannot be demonstrated at all in the urine, apparently having all been decomposed in the body.

Indigo-carmin is answerable to the same objections as methylene-blue in that only a comparatively small part of it is eliminated in the urine, and that it is difficult of color reading; but it is better than methylene-blue in that it is quicker in appearance and more rapid in elimination.

Rosanilin and carbol-fuchsin are similar in their behavior. After a subcutaneous injection of 1 cubic centimeter of a 1 per cent. solution of rosanilin, it normally appears in the urine in less than one-half hour, but does not reach its maximum intensity of color until the second and third hour. Elimination is usually complete in twenty to twenty-four hours—after from 65 to 95 per cent. has been excreted. It is necessary to acidify the urine when carbol-fuchsin has been used, to bring out the color.

The phenolsulphonephthalein test has been developed in the last three or four years. The substance was first prepared by Prof. Ira Remsen, of Johns Hopkins University, and was worked out as an indicator of kidney efficiency by L. G. Rowntree and J. T. Geraghty, of the Pharmacological Laboratory and Genito-Urinary Dispensary, respectively, of the same institution.

It was found that the subcutaneous injection of the drug was followed by its appearance in the urine in less than ten minutes. It is eliminated in high concentration in the bile in one or two hours, but is immediately reabsorbed by all parts of the intestine, so that only a trace is found in the stool, even after large doses. The kidneys normally eliminate from 40 to 65 per cent. in the first hour and from 20 to 25 per cent. in the second hour, making from 60 to 85 per cent. in the two hours. This may seem an extraordinarily liberal range of the normal; but it will be found in practice that it is not so, and that any marked cause of kidney inefficiency will give results so much lower than this, even in the absence of uremic or other symptoms, that the difference will be striking.

The elimination of the drug by the kidneys does not seem to be dependent to any great extent on the amount of urine excreted, as the concentration of the drug is often great enough, in cases where the output of urine is small, to give a higher color when diluted to the required 500 or 1,000 c.c., than in other cases where the output is twice as much and the concentration only half as great. Keyes and Stevens mention a case where the excretion from one kidney was only

5 c.c. of urine; but this was of such high concentration as to contain 17.5 per cent. of the amount injected.

There are three methods of administering the phenolsulphonephthalein, namely, the subcutaneous, intramuscular and intravenous. The former has but little to recommend it. Of the other two, different investigators prefer one and the other. The intramuscular dose appears in the urine in from five to ten minutes, and is excreted to the extent of 40 to 60 per cent. in the first hour. When given intravenously it appears in three to five minutes, and from 35 to 45 per cent. is eliminated in the first fifteen minutes, and from 50 to 65 per cent. in the first half hour. This latter would seem to be the method of choice, but there are several drawbacks to it. In the first place there is sometimes difficulty in getting all the injection in the vein. If part of it is injected into the tissues about the vein, the time of appearance and amount excreted in a given time will more nearly approach the time and amount normal to the subcutaneous method. When the ureteral catheters are used there is often a certain amount of inhibition of flow of urine, due to the presence of the catheters. This condition, though it soon wears off, will often make quite a difference in a fifteen-minute period. We see the receptacle draining one kidney filling rapidly with urine containing a good percentage of phthalein, while the other hardly is dropping at all. Presently the lagging kidney will begin to drain with great rapidity a good quality of urine, and in the course of an hour or less both kidneys will have been found to have equalized themselves, both as to output and to phthalein content. For these reasons I prefer the intramuscular method, with a full hour's collection, even at the expense of a good deal of comfort on the part of the patient.

With the intramuscular method the results are more constant. All or an equal amount of the drug is absorbed in each case. In the course of an hour the nervous inhibition due to the presence of the catheter has been largely overcome. In my opinion one method should be adopted and adhered to. No attempt should be made to compare cases in regard to time of appearance or total excretion unless the same method of injection and collection has been made in each.

Too much must not be expected of the phenolsulphonephthalein or any other kidney function test in the diagnosis of kidney conditions without due consideration of other methods of diagnosis. All that the test shows is the function of the kidney *to-day*. Tomorrow may give a different return. The kidneys are subject to the same depreciation as other organs when attacks are made by disease or injury on the organism as a whole. As Geraghty says: "You cannot separate the function of the kidneys from the function of the other organs." No doubt the lowering of the

absorptive power of the bowel, in cases of general debility from whatever cause, would tend to give a slower excretion and delayed time of appearance. A sluggish liver should do the same, on account of the slowness of secretion of the drug-laden bile. That this or some similar substance may be used in the determination of liver function is a strong possibility, and offers an attractive field for future work.

It must be admitted, even by those who fail to see the full utility of the test, that when the excretory power of the kidneys is diminished, from whatever cause, it will be shown by the phenolsulphonephthalein test. Whether the diminished function is due to permanent or only transitory causes must be determined by repeated tests. Whether it is due to inefficiency of one or both kidneys must be arrived at by catheterizing the ureters and estimating the function of each kidney separately. It shows quite clearly, or even exaggeratingly, the difference in function between healthy and diseased kidneys, because the healthy kidney often vicariously takes up some of the burden of the diseased organ.

There is considerable room for error in the colorimetric reading of the result. Unless one's faculty for color comparison is good, there is liability to faulty reading. Some persons make persistently high readings. The best way to correct this, or the opposite tendency, is to check oneself with solutions of phthalein of known strength instead of urine. In reading urine it is well to try it in different dilutions, and check the readings one against another.

It is easy to see why the reports from different users of the test have been so diverse. The use of different methods of injection, the collection for different periods of time, the failure to consider the general state of the person (whether debilitated or not) and the difference in the reading of results, tend to prevent the just comparison of cases.

Blood in the urine tends to make the reading more difficult. Microscopic blood, or a small amount present macroscopically, does not affect the reading. A fairly large amount may be done away with by coagulating by heat and filtering, if it has not stood too long. After the red cells have given up their hemoglobin into solution, as quickly happens in acid urine, the color reading is interfered with, though not prohibitively, for it is possible by practice to make allowance for quality of color, and read in quantity and density rather than shade of color.

There are substances sometimes present in the urine which will give it a pinkish color. These are substances derived from cascara sagrada rhubarb, senna and others containing chrysarobin, in the presence of an alkali. Urotropin also, by its formaldehyd content, is theoretically capable of doing the same, for instance in combination with resorcin and KOH, or with phloroglucin and

NaOH. Anything of this kind is so extremely rarely encountered as to be of no importance in practice. Occasionally mucus from the bladder of an old prostatic will become pinkish from the addition of the sodium hydrate, before any phthalein is through, and we attribute it to one of the afore-mentioned combinations.

With the use of care there is no cause for confusion in the employment of the phenolsulphone-phthalein test. It is advisable to avoid blood as much as may be possible, and, by washing, to rid the bladder of as much pus and mucous as possible before administering the dye.

The preferred instrument for making the reading of the amount of phthalein in the urine is the Hellige colorimeter, consisting of a cup like that of a hemoglobinometer on one side to hold a portion of the urine containing the dye, and on the other a wedge-shaped cup holding a standard phthalein solution; to be moved up and down in front of a slot, in comparison with the urine. When the colors are properly matched, the percentage of phthalein in the urine is read off a graduated scale at the side of the instrument.

The standard solution for comparison is made by dissolving 6 milligrams of the phenolsulphone-phthalein, represented by one cubic centimeter of the contents of one of the ampules in 1,000 c.c. of water. The ampules contain more than 1 c.c. each, therefore, it is necessary to measure the amount accurately in each instance, whether for making up the standard solution or injecting it.

A very good colorimeter, one perfectly adequate for the use and information of the general practitioner, may be made by procuring two cylinders or tubes of equal size, thickness and density of glass. Into one is put 5 c.c. of the standard phthalein solution, into the other 5 c.c. of the hour's output of urine, properly alkalized and diluted to 1,000 c.c. with water. Stand the two tubes or cylinders side by side in front of a white background, and carefully add water in measured quantity to the standard solution, to bring it down to the same density as the sample of urine. The result is easily computed. For example, if we must add 10 c.c. of water to the 5 c.c. of standard solution to bring it down to the same strength as the urine, thus making the standard cylinder contain 15 c.c. in all; then 15:5::100 per cent.: percentage of phthalein in the urine—in this case 33⅓ per cent.

This home-made apparatus may be checked by the use of solutions of phthalein of known strength, and may be made accurate within a very close percentage.

Thus it will be seen that the phenolsulphone-phthalein kidney function test is a reliable index of the efficiency of the kidneys; that it is valuable in diagnosis and prognosis of all diseases of the kidneys; that it is easy of administration, and from the technical standpoint, is within the reach of any practitioner.

With proper technic in administering and computing the result, and care in putting the proper valuation on the findings, the phenolsulphone-phthalein test will be found to be one of the most valuable helps to the man who tries for precision in his diagnoses and treatment.

Rialto Building.

THE POSSIBLE INTER-RELATIONSHIP OF INFECTIOUS ECZEMATOID DERMATITIS, DERMATITIS REPENS AND ACRO- DERMATITIS PERSTANS *

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In 1902, Engman (*Amer. Med.*, iv, p. 769) described and defined a catarrhal inflammatory condition of the skin which he believed to repre-



Fig. 1.—Dermatitis repens, eight months' duration.

sent a distinct clinical entity, and which he named "Infectious Eczematoid Dermatitis." His conclusions were based on a study of thirty-five cases of the disorder, occurring in private and dispensary practice.

The disease was characterized by the following points, which the author considered of sufficient weight to differentiate it from eczema in the more limited acceptance of the term:

1. The earliest lesion might be a vesicle, a pustule, or an erythematous, scaly or crusted point or plaque.
2. The vesicles were not so closely placed, and were larger than those seen in an ordinary, acute symmetrical vesicular eczema.

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3. There was no symmetry in the distribution of the lesions, except when thus accidentally inoculated.

4. It occurred in patches, usually not involving a large area in a single patch. When the disease begins as a vesicle, these lesions usually break to form a scaly patch which extends in the usual manner. New foci may begin as a cluster of vesicles.



Fig. 2.—Showing abscesses in prickly layer, round-cell infiltration in papillae and elevation of corneous layer of epidermis. (Only the lowermost stratum of the corneous layer is shown.)

5. The patches were circumscribed, with sharply defined margins. The epidermis at the periphery was usually undermined, split up, detached, or raised; the two latter events being caused by perceptible or imperceptible serous or seropurulent fluid, which might, if it contained much fibrinous material, quickly form a thin, ridge-like crust about the periphery, while if in larger amounts and more fluid, drops of it could be squeezed out from under the raised epidermis.

6. The disease increased by peripheral extension of the patches and the formation of new ones by auto-inoculation.

7. The exposed parts were those most frequently affected.

8. There was no attempt at central involution.

9. There was a minimal amount of itching.

10. The nearest lymphatic glands were often enlarged.

11. The initial or earliest lesion contained the yellow or white staphylococcus in pure culture,

as did also the surface and crusts of the succeeding patches.

12. Experimental inoculation could usually be successfully performed, but the lesion thus produced began as an erythematous patch which soon oozed and crusted, but did not vesiculate.

13. The history of trauma, infection, or association with suppurative conditions was characteristic of the condition.

14. Local antiparasitic applications were sufficient to effect a cure.

Bacteriologically, the contents of the initial vesicles, the serous and seropurulent discharge, the under-surfaces of the crusts and scrapings from the freshly denuded areas produced, when inoculated on artificial culture media, pure cultures of the staphylococcus, yellow or white, or both. When the apparently uninjured skin of a person suffering from eczematoid dermatitis was sterilized by the usual methods, and then irritated and inoculated with the discharge from the eczematous surface, a condition similar to the one existing at the point from which the discharge was taken speedily developed.

Inoculations from individual to individual, or on individuals from artificial cultures were not

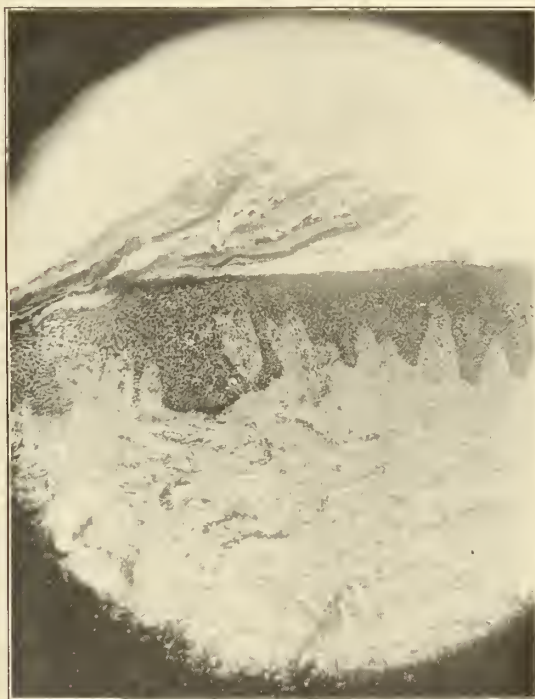


Fig. 3.—Infectious eczematoid dermatitis, showing involvement of corneous layer of epidermis only.

encouraging, probably because of the reaction on foreign soil, or because of some change in the chemotactic character of the organism when grown on laboratory media.

Fordyce (*Jour. Cutan. Dis.*, 1911, p. 129) has called attention to the large percentage of cases of

eczema in which the catarrhal manifestations have been preceded by some antecedent pathological condition, such as scabies, wounds which may have become infected, furuncles, intertrigos, suppurating sinuses, etc. Because of this and of other similar evidence, Fordyce is of the opinion that many varieties of so-called eczema should be grouped under Engman's infectious eczematoid dermatitis.

The classic experimental work of Benda, Boekhart and v. Gerlaeh (*Monats. f. prakt. Dermat.*, 1901, Aug. 15) regarding the rôle of the staphylococcus in the etiology of eczema is well known. These investigators inoculated themselves with agar and bouillon cultures of staphylococci, and also applied filtered and unfiltered cultures (containing staphylococcus toxin and staphylococcus toxin with staphylococci, respectively) to injured and irritated surfaces on various parts of their bodies.

They found that staphylococci from agar cultures and isolated staphylococci produced impetigo staphylogenes, while staphylotoxin, from filtered bouillon cultures, and staphylococci and staphylotoxin from unfiltered bouillon cultures invariably gave rise to eczematous lesions which were very similar in character.

In a supplementary communication, Boekhart (*Monats. f. prakt. Dermat.*, 1901, Nov. 1) expresses a belief that eczema is undoubtedly due to the staphylococcus. This organism is constantly present, although generally in an inactive state, in the follicles of the skin. Under conditions favorable to the multiplication and growth of the bacteria, a state that may result from a lowered resistance on the part of the host, or, more probably, from some change that improves or increases the nutrient material on which the staphylococcus flourishes, the organism assumes a more active rôle, and, in addition to increasing rapidly in numbers, excretes large amounts of staphylotoxin. As a result of the serotactic power of this toxin, papules and later vesicles develop. The lesions farthest removed from the parent focus are bacteriologically sterile at first, but those in the immediate vicinity contain bacteria as well as staphylotoxin. The subsequent changes undergone by the contents of the vesicles are largely dependent on the nature and amount of "staphyloplasin" (a second theoretical substance which is the result of cocci metabolism) present. If the "plasmin" is great in quantity, or extremely virulent, one or more furuncles may develop, or, if the microorganisms are superficially located, the resulting lesions may be impetiginous in character.

The parasitic origin of eczema formed one of the principal subjects for discussion at the Fourth International Dermatological Congress, and after a careful perusal of the contributions of Unna, Jadassohn, Galloway and Eyre, and Brocq and Veillon (*Trans. Fourth Internat.*

Dermat. Cong., Paris, 1900) one is almost forced to the conclusion voiced by Neisser that "there is no single disease which merits the name of 'eczema,' and the term, as used at present, undoubtedly includes several different disorders." For this reason, if for no other, a more general recognition of the identity of infectious eczematoid dermatitis is urged, as the continued inclusion of the condition in the eczema group tends only to confusion.

In a comparative study of dermatitis repens (Crocker, *Dis. of the Skin*, 1893, p. 180) and aerodermitis perstans (Hallopeau, *Ann. de dermat. et de syph.*, 1897, p. 473). I found (*Jour. Cutan. Dis.*, 1911, p. 325) that pure cultures of the *Staphylococcus pyogenes aureus* or *albus* could almost invariably be obtained from the cloudy or purulent exudate at the margins of the lesions. At the time these investigations were made, in 1909 and 1910, I was unacquainted



Fig. 4.—Infectious eczematoid dermatitis following infection subsequent to ulceration from ingrowing toe-nail.

with the researches on the bacteriology of infectious eczematoid dermatitis, and my attention was not drawn to the disease and to its probable etiology until I saw a reference to it in an article on bacteriotherapy in the *Journal of Cutaneous Diseases*, in November, 1910. The histopathology of the condition was also alluded to, in connection with the serogenetic effect of the staphylococci lying in and beneath the stratum corneum. In both this communication and the earlier one, the writer suggested a possible relationship between the disease described by him and the dermatitis repens of Crocker.

During the past year I have had an opportunity to study the histology of the lesions in several typical examples of infectious eczematoid dermatitis, and a comparison of the findings in this disease and in dermatitis repens is of inter-

est. In parentheses, it may be stated that I found Hallopeau's "acrodermatitis perstans" identical in practically every respect, bacteriologically and histologically, with the condition which had several years previously been described by Crocker as dermatitis repens.

Patient.—S. J. J., furniture salesman, aged 34 years. Personal and family histories negative. The disease followed an infection derived from a suppurating ingrowing toe-nail of the great toe of the left foot. In the course of a week, the process extended along the inner side of the foot, and some distance up the leg, and consisted of a series of sharply outlined patches of vesicles and pustules, with some exfoliation and undermining of the marginal epidermis. The patch extended in an irregular manner, the central portion remaining more or less inflamed, with some oozing of serum, for several days. There was little or no itching, although a burning sensation was present at times.

Patient.—S. B. C., farmer, aged 53 years; referred to me by Dr. G. W. Davis of Ottawa, Kan. The initial attack, which occurred in 1903, followed a suppurating wound on the dorsal surface of the right hand, and lasted several weeks, the hand, arm and right side of the chest being involved. Since that time, the patient has experienced one or more attacks each year, usually during the summer months, and invariably preceded by some slight injury. His resistance to staphylococci is apparently very low, as the most insignificant wound, if neglected, invariably suppurates. At first it was thought that this extreme susceptibility might be due to a glycosuria, but repeated urinalyses failed to reveal anything abnormal. Fordyce's (*Jour. Cutan. Dis.*, 1911, p. 135) suggestion that individuals may be sensitized to the chemical products of pus organisms, just as patients with tuberculosis may be sensitized to tuberculin, is of particular interest in this case.

At the time of consultation, the disease, which had originated from the purulent discharge of a furuncle on the left hand, had been present three weeks, and the left wrist and arm, and practically the entire trunk were involved.

Patient.—A. L., chauffeur, 21 years of age; referred to me by Dr. C. C. Price of this city. The disease followed a scratch wound of the left foot, received while swimming, and the initial patch of eczematoid dermatitis developed on the inner surface of the left instep. Shortly afterward, a second circumscribed collection of vesicopustules appeared just below the knee, and, one week later, a patch developed on the right hand.

Histopathology: Although the patients came under observation at different times, the biopsied material was similarly prepared in each instance, and as the findings in the three cases were in all essential respects the same, the results may be incorporated in a single report.

For laboratory purposes, tissue was secured from the margin of the lesion on the inner surface of the affected foot in Case 1; from the forearm in Case 2, and from the instep in Case 3. The excised bits of material were fixed in 4 per cent. aqueous formalin, mounted in celloidin, and stained with the usual dyes.

The destructive process was confined to the lower layers of the stratum corneum. There was considerable edema of the prickle cell layer, together with a slight acanthosis. The upper layers of the stratum corneum were frayed and disintegrated, and entangled in the meshes of

the fringe were numerous broken down leukocytes and epithelial cells, with some fibrin. With the exception of the edema, and a slight increase in thickness, the prickle layer was but little changed. In the Gram-Weigert sections, an occasional small collection of staphylococci were to be found in the uppermost regions, but no abscesses were to be seen. In the corneous layer there were numerous masses of cocci, particularly in that portion lying just above the stratum lucidum. The papillae were somewhat swollen, and there was some perivascular infiltration of the interpapillary vessels. No mast cells, nor giant cells were to be seen. The elastic tissue was unaffected.

In dermatitis repens, a disease which is also probably due to the yellow or white staphylococcus, the pathologic changes, instead of being almost wholly confined to the upper corneous stratum, are distributed throughout the epidermis, and are particularly marked in the prickle cell layer. The inflammatory manifestations consist, for the most part, of edema of the elements comprising this layer, together with a series of abscesses, situated about midway between the stratum lucidum and the basal layer of the rete.

In some instances, the collections of pus are sharply circumscribed, while in others the process is more extensive, and the abscesses, instead of being minute, with clearly defined walls, are quite large, and may be connected by narrow sinuses. Occasionally, the pus burrows upward, and escapes to the surface by loosening the overlying and more or less impermeable stratum lucidum.

In those cases of dermatitis repens in which the symptoms of inflammation continue to persist in the areas that have lost their corneous covering, a condition which Hallopeau claimed as one of the differential points between acrodermatitis perstans and Crocker's disease, a careful examination reveals the presence of numerous tiny cavities, filled with broken-down leukocytes, fibrin and occasional groups of staphylococci, and covered by a crust made up of disintegrated epidermal cells and dried pus. At first, I was of the opinion that these persistent foci were the result of a deeply seated infection of the hair follicles, but an examination of two excised lesions showed that they were simply epidermal abscesses which had, for some reason, failed either to reach the surface or become absorbed.

CONCLUSIONS

Infectious eczematoid dermatitis is a well-defined clinical and pathological entity, and should be separated from the group of pustular eczemas in which it has heretofore been included. It is very probably due to the yellow or white staphylococcus.

Histologically, infectious eczematoid dermatitis differs from dermatitis repens (a term which also

includes the so-called acrodermatitis perstans of Hallopeau) principally in the location of the inflammatory process, and the cutaneous structures involved. In the first named, the pathologic changes are confined almost wholly to that portion of the corneous layer which overlies the stratum lucidum, while in the last, the infection is more deeply seated, and the prickle cell layer bears the brunt of the attack.

The histological findings readily account for the difference with which the two diseases respond to treatment. Infectious eczematoid dermatitis is quickly and favorably influenced by the simpler and milder antiparasitic applications, and, when properly treated, an attack seldom extends over a fortnight. In dermatitis repens, on the other hand, it is usually very difficult to bring about a cure, and the disease often persists for months in spite of the most vigorous treatment.

Vaccine therapy, properly employed, is of great value in combating both infectious eczematoid dermatitis and dermatitis repens.

Commerce Building.

PRESENTATION OF A NEW URETHROTOME *

H. McCURE YOUNG, M.D.

ST. LOUIS

Whoever would invite the attention of the profession to a new instrument should first give proof of the need of such an instrument; this

orrhage and extravasation, remote from an excessive formation of scar tissue. How far the current urethrotomes are from enabling us to do this in any great number of cases I hope to make evident as we proceed.

The simplest form of urethrotome is probably that of Maisonneuve. This will certainly cut the stricture provided we succeed in passing the staff through it, but it should be noted that the instrument as ordinarily to be had in the shops contains no provision for its passage over a whalebone bougie. This entails a rather serious inconvenience for the reason that the surgeon cannot always pass the filiform of his election. The detachable woven filiform guide he will often find too pliable, and will therefore have recourse in difficult cases, to whalebone bougies. When at last he has succeeded in threading the stricture, it will generally be found that it is one of the whalebones that has passed, and that therefore his instrument is not applicable. Of course, it would be a very simple matter to equip the staff with an extra tip tunnelled for passage over a whalebone bougie, and this change in the instrument should be insisted on. The knife of the Maisonneuve urethrotome is blunt at its uppermost point, and it is claimed that this fact will enable it to be passed down along the grooved staff through the sound urethra without infliction of trauma. But surgeons who have had an extensive experience with it deny that this is the fact, and state that the instrument will inflict damage even on the sound pendulous urethra. When we come to the posterior urethra, surely the question can hardly admit of argument. At

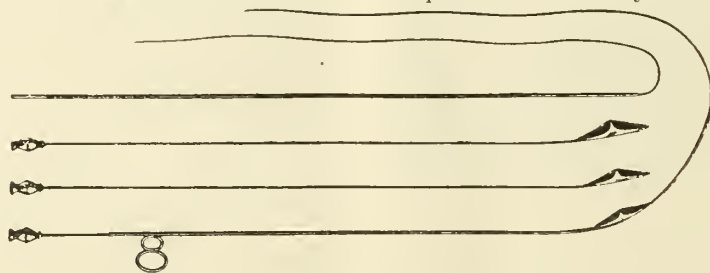


Fig. 1.—Maisonneuve urethrotome.

involves in our case a brief discussion of the problem of internal urethrotomy and of the merits and limitations of the various instruments offered for its performance. That my remarks may be the more easily followed I shall accompany them with illustrations of the more popular urethrotomes.

The problem of internal urethrotomy is very simply stated. Our aim should be, first, to divide the stricture, the whole stricture and nothing but the stricture; second, to divide it in such a way as to expose our patient to the least possible danger of complications, immediate from hem-

this point we have a sort of physiological stricture, the urethra being held firmly in the grasp of the cutoff muscle. This the patient can relax at will it is true, but the muscle is normally in a state of tonic contraction, and this contraction is ordinarily increased on any attempt to pass an instrument. The knife will therefore certainly divide the membranous urethra if passed through it.

And yet the surgeon must pass his knife through it or risk leaving an unsuspected stricture in this region uncut. The instrument has no finder except the knife itself, and he who would be sure that he has restored the wide patency of the entire canal will have no alterna-

* Read before the St. Louis Medical Society, Oct. 5, 1912.

tive, but must pass his knife through the entire urethra into the bladder.

Albarran wished to escape the disadvantages of this fixed knife of Maisonneuve and constructed his instrument in such a manner that the knife can be made to disappear completely within the shaft of the instrument. It now becomes possible to pass this lowered knife through the entire urethra without infliction of trauma, but we have still not gained very much for the reason that the instrument is not provided with any finder or mechanism for informing the surgeon when his knife lies at the site of constrict-

tion. The mere ability to raise or lower the knife at will is practically worthless to us, unless at the same time we are able to determine with accuracy when such raising or lowering is indicated. A preliminary estimate of the location of the point requiring incision may of course help somewhat, but it is to be remembered that the urethra is very elastic, may be lengthened by simple tension and will accommodate itself to the degree of congestion existing in the corpora cavernosa, so that its length is by no means a constant quantity. Therefore a stricture which our sound or acorn has shown to be four inches from

can be passed through the narrower strictures.

We shall now consider another class of urethrotomes designed to give greater accuracy, but which cannot be used on a stricture having a caliber of less than 18 French. They all cut the stricture from behind forward and are provided either with some sort of finder for accurately locating the stricture before exposing the knife, or at least with a dilator for informing the surgeon when he has restored the normal caliber of the urethra and may cease from his operations. The instrument of this type best known in America is probably that of Otis. This is provided

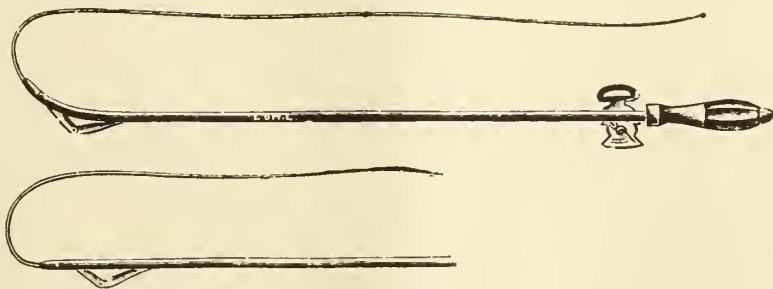


Fig. 2.—Albarran's urethrotome.

the meatus, may readily be five inches from it by the time we have succeeded in passing our urethrotome; and we shall therefore be compelled to incise blindly over a distance of two or three inches in order to be sure that the stricture has not escaped us. And even this is not all, for having withdrawn our instrument we may find that still another stricture exists somewhat deeper in the urethra and that we have now another two hours' work ahead of us trying to thread that stricture over again. Such inaccurate technic will absolutely not do, and the surgeon who uses this instrument will almost certainly be tempted



Fig. 3.—Otis urethrotome.

with a dilator and during introduction the knife lies concealed in the tip. The surgeon is therefore enabled to lodge his knife behind the stricture without infliction of trauma provided always that the stricture has a caliber of at least 18 French. But if we examine this instrument carefully we shall see that if the dilator is to lie within the grasp of the stricture, the knife must lie, at the lowest estimate, at least three-quarters of an inch behind it. Furthermore, the instrument is not provided with a finder which would enable the surgeon to place his knife with any such degree of accuracy. He will therefore pass

the meatus, may readily be five inches from it by the time we have succeeded in passing our urethrotome; and we shall therefore be compelled to incise blindly over a distance of two or three inches in order to be sure that the stricture has not escaped us. And even this is not all, for having withdrawn our instrument we may find that still another stricture exists somewhat deeper in the urethra and that we have now another two hours' work ahead of us trying to thread that stricture over again. Such inaccurate technic will absolutely not do, and the surgeon who uses this instrument will almost certainly be tempted

his instrument well through the stricture, possibly into the bladder, open his dilator slightly and then withdraw the knife until the further opening of the dilator informs him that he has accomplished his purpose. This means that he must divide everything lying between the stricture and the tip of his instrument at the time of beginning his incision, and where this includes the membranous urethra as it very often will, the disadvantages of such inaccurate work will be at once apparent. The instrument will, however, spare that portion of the urethra which lies anterior to the stricture.

To give this instrument more accuracy Kollmann added to it two small olives which would

his knife and withdraws the instrument further until resistance ceases, when he may lower the knife. It will be seen that his incision has been placed with absolute accuracy, has divided the entire stricture and nothing but the stricture. But this is not all. His incision has been a shallow one raising the caliber of the urethra merely up to that of the next larger olive. This olive he will now adjust and repeat his maneuvers placing his incision this time somewhat laterally to the original one. And so he will continue using the olives seriatim until he has brought the urethra up to such caliber as he may elect.

The advantage of using multiple shallow parallel incisions instead of a single deep one is that



Fig. 4.—Kollmann's modification of Otis' urethrotome.

serve as finders and enable the surgeon to limit his incision quite closely to the area involved. But, as the distal olive must be passed through the stricture before the knife can be brought to bear on it, it is apparent that the instrument so modified can be applicable only to strictures of relatively very large caliber, and this is probably the reason that it has never come into general favor.

This leads us to a consideration of Kollmann's own instrument, and here for the first time we find a urethrotome which attains to an ideal degree of accuracy. It is, however, subject to the limitation mentioned above, namely, that it

a shallow incision exposes our patient to less immediate danger from hemorrhage and extravasation and will also heal more rapidly and with less formation of scar tissue. Many such incisions with sound epithelium between them may be expected to heal over as quickly as one.

These are all the current urethrotomes which we need consider. Bearing firmly in mind their uses and limitations let us now examine my own instrument. It is designed to divide a stricture from before backward using a grooved staff similar to that of the Maisonneuve, and a cutting apparatus to be passed down along the groove; this latter is equipped with a hinged knife resem-

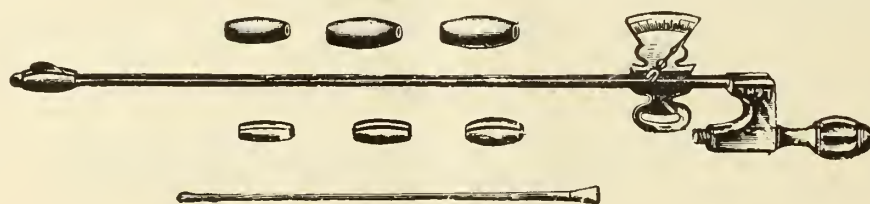


Fig. 5.—Kollmann's urethrotome.

cannot be used on a stricture having a caliber of less than 18 French. It is also not applicable to strictures of the posterior urethra. It consists of a straight rod, tipped on the end with an olive in which the knife lies concealed. A graduated series of interchangeable olives accompanies the instrument and it is in this feature that the great merit of the apparatus lies. The surgeon adjusts the largest olive which the stricture will admit and having lowered his knife passes the olive down through the stricture. He then withdraws it until he encounters resistance which informs him that his olive rests snugly against the posterior orifice of the stricture. He then elevates

bling that of Albarran and a graduated series of olives. The grooved staff, in addition to a detachable woven filiform guide, is provided with an extra tip tunnelled for passage over a whalebone bougie. The surgeon will first pass the grooved staff down through the stricture and into the bladder. He will then insert the cutting apparatus and adjust the smallest olive; and with the knife lowered he will advance the cutting apparatus along the groove of the staff until he encounters resistance. This will inform him that the tip of his olive lies snugly against the face of the stricture and that he may now elevate his knife. This done he will advance the cutting

apparatus further until resistance ceases when he will again lower his knife. Now he will again advance his cutting apparatus testing the entire urethra with his olive as he proceeds and elevating his knife only when strictured tissue is encountered. By the time the olive has entered the bladder he knows that he has brought the caliber of the entire urethra up to that of the olive employed, and this he has done with entire conservatism sparing absolutely the sound urethra both in front of and behind the stricture. Now he will withdraw the cutting apparatus as it was

instrument the surgeon is enabled to perform the operation ideal to the given case whether he elects the single superior incision or multiple parallel incisions. The olive follows the knife closely through the stricture, thus putting the urethra on the stretch while the cutting is done.

Now if this urethrotome would do nothing more than just what all other urethrotomes combined will do, there would still be an excuse for its existence. The operation of internal urethrotomy has been rendered exceedingly technical by the large number of instruments hitherto necessary to its proper performance so that the surgeon who wished to operate elegantly in the urethra has been compelled not only to have an assortment of instruments in his cabinet, but also to maintain constantly a firm grasp on the indications for and the limitations of each. Therefore anything which will simplify the technic and relieve the surgeon of this burden will be of value. This instrument, as far as the surgical principles on which it is based are concerned, is perfectly simple, and the technic of its employment is comprehensible at once.

But the instrument will do something more than this. We have seen that none of these other instruments will enable the surgeon to operate with a satisfying degree of accuracy in the posterior urethra, nor on the narrower strictures wherever situated. But this instrument is equally accurate whether the stricture is large or small and whether situated anteriorly or posteriorly. The olive finds the stricture and the knife then

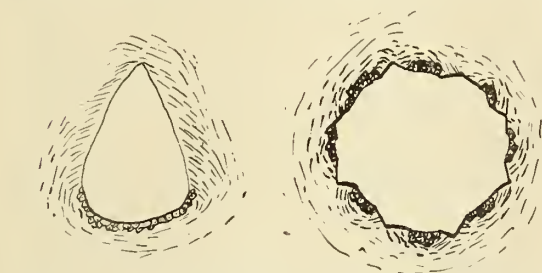


Fig. 6.—Showing advantage of multiple shallow parallel incision over a single deep one. Many shallow incisions with sound epithelium between them may be expected to heal over as quickly as on one incision.

introduced with the knife lowered and protected by the olive, the grooved staff being allowed to remain in position. Next, he will exchange the olive for one larger in size and repeat the operation, placing his incision somewhat laterally to the original one, and so he will proceed throughout the series of olives until he has brought the

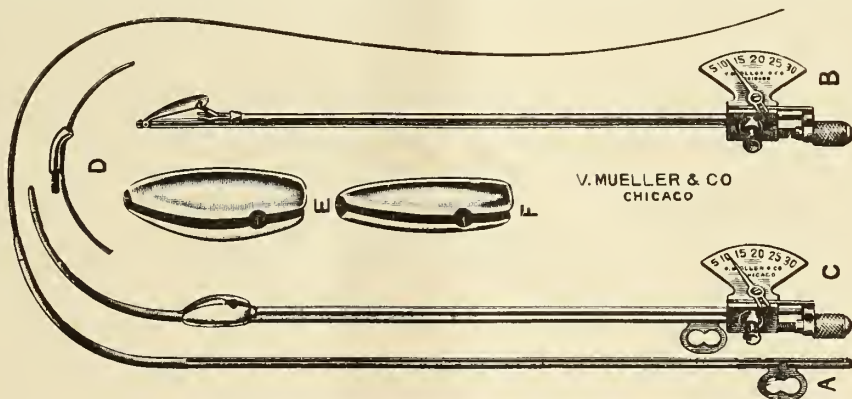


Fig. 7.—Author's urethrotome. A, grooved staff; B, cutting apparatus; C, cutting apparatus inserted into grooved staff and olive adjusted; D, extra tip for introduction over a whalebone bougie; E and F, olives.

urethra up to such caliber as he considers indicated. Then only will he remove the grooved staff.

It will be seen that this is a universal instrument being applicable wherever internal urethrotomy is applicable, namely, when dealing with strictures of whatever caliber, provided they are not impassable to a filiform guide, and whether situated in the anterior or the posterior urethra. With accuracy we attain its two concomitants—thoroughness and conservatism. With this in-

cuts it. It is hoped that this instrument will assist the operation of internal urethrotomy out of the neglect into which a too complicated and inaccurate technic has permitted it to fall, and that, with the extension of the field of conservative surgery in the urethra, we may see a proportionate diminution in the number of mutilating external urethrotomies with their prolonged convalescence and chain of unfortunate sequelae.

REPORT OF THE COUNCIL ON MEDICAL EDUCATION

Your Committee feels that it cannot improve on the plan of report as used in the past. In the year under review no startling changes have occurred in medical education in Missouri.

The existing schools are shown in Table I, with the attendance for the year 1911-12 as shown by affidavits made to the Missouri State Anatomical Board:

TABLE 1

Name of School	Location	Classification	Attendance, 1911-12
American Medical College.....	St. Louis.	Regular.	208
College of Physicians and Surgeons.....	St. Louis.	Regular.	35
St. Louis University Medical School.....	St. Louis.	Regular.	293
Washington University Medical School.....	St. Louis.	Regular.	110
University Medical College.....	Kansas City.	Regular.	66
Ensforth Medical College.....	St. Joseph.	Regular.	44
University of Missouri Medical School.....	Columbia.	Regular.	44
			800
Hahnemann Medical College.....	Kansas City.	Homeopathic.	39
Eclectic Medical University.....	Kansas City.	Eclectic.	50
			89
American School of Osteopathy.....	Kirksville.	Osteopathic.	627
Central College of Osteopathy.....	Kansas City.	Osteopathic.	42
	Nevada.		669
Weltmer Institute of Suggestive Therapy.....	Kansas City.	Psychotherapeutic.	104
Postgraduate Medical School.....		Regular.	31

As appears from the table, there are at present in Missouri seven regular medical schools, one of which gives instruction only in the first two years; one only in the last two years;¹ one post-graduate school; one homeopathic school; two schools of osteopathy and one of "suggestive therapeutics." One regular school, the Barnes Medical College, has gone out of existence since the last report. Suits are pending against the State Board of Health of Missouri by the St. Louis College of Physicians and Surgeons and the Eclectic Medical University for the recognition of these schools as approved institutions.

In the regular schools there are 800 students, as compared with 968 the year before. The decrease is chiefly due to the closing of the Barnes Medical College. The attendance at the American Medical College has been increased; the St. Louis University Medical School and the University Medical School at Columbia show slight gains. The attendance in the other schools has fallen off.

In the irregular schools the attendance is slightly larger (89 as compared with 83); in the osteopathic schools it is just the same (669); in the school of suggestive therapeutics, twice as large (104:50) as last year.

1. The University Medical College, Kansas City, which was closed by a majority vote of the trustees in 1911, was reopened again last fall, having been purchased by other interests, but under the new plan teaches only the last two years (clinical years) in medicine.

These figures raise some interesting questions. With the increased requirements for entrance to the regular schools, and the increasing stringency of the State Board examinations, the attendance at regular medical schools threatens to become still less. Even now there are more students at irregular than regular medical schools, and aside from all questions of doctrine, it is clear that the standards for entrance and for graduation are lower in the irregular schools. We are threatened, therefore, with a flood of

poorly educated men who intend to practice medicine and regarding whose imperfect preparation the public is not at all informed. It would seem important that an impartial investigation be made of all these irregular schools and the exact conditions made known. Dogmas would not have to be considered. It would be enough to show the facilities for study and the preparation given in the recognition of communicable diseases. As regards thoroughness of study, the dissection records of the irregular and osteopathic schools are instructive. The Anatomical Law provides that the unclaimed bodies shall be distributed to the various schools in proportion to their attendance. On account of the expense involved in the embalming and shipment of bodies, however, some of the schools fail to claim their full quota of available bodies. In the eclectic school, four bodies were furnished; in the homeopathic school, five; or one body to 12 and 8 students, respectively. One osteopathic school had five bodies for 40 students and the other and larger school had thirty-eight bodies for 627 students, or one body to 8 students and one to 16.5 respectively. Compared with this, Washington University Medical School had one body to 4 students, including dental students, and St. Louis University Medical School, one body to about 5 students. Yet the public idea of osteopathy includes a vague, but firm belief of superior anatomic knowledge on the part of its practitioners.

The first effects of the work of medical schools are shown in the results of examinations for the license to practice. The examinations are imperfect in all states in many details; the standards are often below those of the better schools, but they offer a rough test of a certain kind of preparation.

An examination of the figures reveals some facts of interest. It appears that the medical schools of Missouri fall chiefly into two classes defined by the Council on Medical Education of the American Medical Association, viz., Class A, in which the candidates fail in a proportion of less than 10 per cent., and Class C, in which the failures are more than 20 per cent., with one school raised from Class C to Class B. In the former are the St. Louis University School of Medicine and the Washington University Medical School. The absolute figures in the weaker groups are also instructive. Among graduates of the last five years, the failures in the Class C schools amount to 21.4 to 46.7 per cent. Graduates in 1911 in those schools failed to the extent of 20.0 to 52.6 per cent. Of those examined in

that work in the important, but relatively neglected field of preventive medicine is especially appropriate for a state institution.

We feel sure that the profession will look with great interest on the carrying out of the policy of the Board of Curators.

Respectfully submitted,
GEORGE DOCK,
C. M. JACKSON,
Committee.

As one member of the Committee of Medical Education of the Missouri State Medical Association, I desire to reiterate the views twice before endorsed by the full and unanimous vote of the state society as a whole on medical education in Missouri as it concerns particularly the Medical Department of the State University. With this interest, as citizens and tax-payers, the medical profession of Missouri should have some right to an opinion, while with other private schools it is not vitally interested.

Our Association, at a meeting at Jefferson City, six or seven years ago, went on record as favoring the establishment of the Clinical De-

TABLE 2

Name of School	1907-11		1911		1907-11		Other States	Class	
	No. Exam.	Per Cent. Failures	No. Exam.	Per Cent. Failures	Home	Home			
American Medical College.....	13	23.1	10	20.0	11	27.3	3	50.0	C
Barnes Medical College.....	73	37.0	51	23.5	32	28.1	40	42.5	C
Eclectic Medical University.....	18	33.3	13	30.8	.	.	18	33.3	C
Ensworth Medical College.....	26	42.3	15	33.3	5	60.0	21	38.1	C
Kansas City Hahnemann.....	19	26.3	13	15.4	6	33.3	13	23.1	C
St. Louis Coll. of Physicians and Surgeons.	45	46.7	19	52.6	20	35.0	25	56.0	C
St. Louis University Medical College.....	80	8.7	64	4.7	36	2.8	44	13.6	A
University Medical College of Kansas City.	42	21.4	35	20.0	24	16.7	18	27.8	B
Washington University Medical School.....	51	3.9	45	4.4	33	3.0	18	5.6	A

Missouri the failures vary from 16.7 to 60 per cent.; in other states, 27.8 to 56.0 per cent. It might be supposed that ordinary business prudence would impel men to avoid a school which offers an even chance of failure to secure license, or one-tenth the chance given by a Class A school. It must be borne in mind that the low standards of some state boards offer an opening for the product and so keep up the existence of the poorly equipped schools.

The Council has carefully considered the problems of the clinical department of the state university.

We believe that it is the opinion of all who understand the situation that there is no need of more medical schools of ordinary grade; on the other hand, any institution that can provide one of superior grade is certain to meet a distinct want.

In order to meet that want it is necessary to have sufficient clinical facilities and a sufficiently large, well-trained staff to carry on the work of instruction in the clinical years. Facilities should also be provided for research as well as for routine instruction. It may be further pointed out

partment of the State University in one of the larger cities of the state. At the meeting at Hannibal, in 1910, after the curators of the state university had entirely abolished the two years of clinical instruction, this Association again unanimously went on record demanding of the state that it do its full duty to medical education by restoring, at the earliest possible moment, a complete four-year course in medicine. Personally, as a member of this committee, I wish to reiterate my belief in the views of both of these previous actions of the State Medical Association.

JABEZ N. JACKSON.

NASAL OBSTRUCTION AS A CAUSATIVE FACTOR
IN DISEASES OF THE THROAT AND EAR

D. C. ADCOCK, M.D.
WARRENSBURG, MO.

It is not my purpose to present here a tabulated presentation of cases from my own experience in dealing with these conditions of nasal obstruction, for in truth my experience has been comparatively small in number of cases, not hav-

ing been so fortunate as my city brother as regards clinical material; but rather would I present for consideration such correlation of facts and conditions relative to the recognition and clinical classification of pathological conditions existing in this too much overlooked portion of the anatomy, the nose, and perhaps augmenting the argument from time to time with a little of my personal experience. It has been said that "the eyes are the windows to the soul," and it might be asserted with equal truthfulness that the nose is the life-conducting conduit to the body, for through it should pass the all-important and essential life-giving element, oxygen.

It is in this connection that our attention is called to certain diseased conditions of the pharynx, chiefly pharyngitis sicca, which disease I think is wholly traceable to a bilateral atrophic rhinitis, or more generally speaking, to an imperfect unilateral respiration, viz., the air passing through one nostril as a result of total or partial obstruction of the other nasal passage, follows its natural course on down over the corresponding side of the pharynx to the lungs; the air being excessive in volume over-irritates the side of the pharynx over which it passes, thus tending to and producing an hypertrophy of the corresponding side of the pharynx; the other side of the pharynx, through non-use, tends to atrophy; the usual and dire results may be expected to follow when these conditions fail to be recognized. On examining the nose, in ferreting out the disturbed conditions of the throat and ear commonly met with, we not infrequently are confronted with some of the following conditions, any one of which may exist separately or in conjunction with any one of the other named conditions; or one or both of the nasal passages may be the seat of these malformations, chief among which are: Deviated septum with cartilaginous or bony projections; septal spur, posterior or anterior; enlargement or atrophy of any one of the turbinate bodies, or all; new growths; polyps, although classified as a nasal growth, they are, *per se*, resultant from diseased conditions of the ethmoid sinuses.

Most often we find one or two of the above-named conditions existing in the patient contemporaneously, and if surgical intervention is instituted with proper regard for modern surgical procedure the patient may be restored to health and comfort.

It was my good fortune, some months ago, to examine and treat a lady of my city who had suffered all her life from a bilateral nasal obstruction almost complete, due to a complete hypertrophy of both inferior turbinate bodies; she possessed that typical, dull, pitchless voice such as is commonly heard by all practitioners in these cases. After considerable persuasion, the patient finally yielded to amputation of both inferior turbinate bodies, and the results obtained

by this operation have more than fulfilled our most sanguine expectations. The patient breathes more naturally than ever before and has begun to train herself to normal nasal breathing, a procedure that she did not know possible for her; her voice is regaining resilience, throat has assumed a more physiologic appearance, although on account of her age, which is about 40, the nares and nasal passages will ever remain small, which caliber, I am sure, is resultant from non-use, therefore non-development of the nasal bony structure.

Adenoids, probably the most menacing and deplorable of all nasal obstructions, are so often and completely exploited in our societies and journals that I deem it useless for me to use space in exploitation of many maladies due to presence of adenoids.

I come now to aural troubles as caused, to my mind, and generally so conceded, by nasal obstruction and their associated conditions and sequellae. No pain is more excruciating to the old as well as the young as that attending acute suppurative otitis media and simple myringitis. Yet these troubles are rarely ever traceable to other conditions than infection by way of the nasopharynx and Eustachian tube, which carry those inflammatory and pus-producing germs originating in the vicinity from the many and varied pathological conditions, namely, adenoids, tonsillar and pharyngeal infectious febrile conditions, acute rhinitis, any inflammatory conditions in the nose, or infectious discharges from any of the nasal sinuses. Any of these materials may be forced through the Eustachian tubes by simply blowing the nose, travel on up into the middle ear and by bacterial invasion set up in the middle ear a localized abscess which may terminate in any of the distressing symptoms and sequellae well known to us all.

Chronic catarrhal otitis media non-suppurata, with its attending symptoms of tinnitus and progressive loss of hearing, is I am sure the constant dread of the ear worker, for it is in this condition, with its many complications within the ear, such as ankylosis of one or all the ossicular chain, hyperplasia of the internal mucous membrane, tympanic adhesions with functional nerve involvement—that we meet our defeat so often and are compelled to be content with clearing away the predisposing causes in the nose and throat, and constitutional causes as well, relieving some of the complications either by surgical intervention or mechanical treatment, thus arresting the process frequently and often quieting the noises. We are told by quite a few authors that this trouble is very frequently influenced by heredity which of course means nothing else than an hereditary anatomical anomaly of the nares or postnasal orifice, or a catarrhal predisposition augmented by climatic conditions toward catarrh of the respiratory passages. The Eustachian

tube, opening as it does on either side of the nasopharyngeal vault, is located in the very midst of the height of all the inflammatory conditions of the nose and throat. Having such location, is it any wonder that its lumen becomes permanently, partially or wholly occluded by this same catarrhal process, whatever nature it may be, traveling up the course of the Eustachian tube and causing an hypertrophy of the mucous membrane; thereby occlusion of the lumen and a cutting off of all air-supply to the middle ear follows and leaves this very delicate and essential organ of the middle ear in a total or partial vacuum; and since the tympanic membrane, which separates the middle ear from the outside world, is very thin and sensitive, it is but natural and mechanical for the outside air, pressing against a partial or nearly complete vacuum, to bend the tympanic membrane backward into the tympanic cavity, and in this position the membrane is held by synechia; it is almost impossible except by surgical means to release it from its anchored position. This adhesion or synechia of the inner surface of the drum membrane to some surfaces of the mucous lining of the middle ear will, if not relieved in time, cause an ankylosis of one or all of the ossicular bones and render the case well nigh past relief.

Thus we see the great importance of an early diagnosis, especially do I mean early in the life of the patient, so that the causative factor disposing to the production of any of the many possible pathological conditions of the throat or ear may in time be eliminated. It is known to us all I am sure that even though these nasal pathological conditions are relieved, when the aural symptoms of chronic catarrhal otitis are well developed, together with tympanic retraction, a majority of our patients never again regain their former hearing and some are never even relieved of that harassing, nerve-racking symptom, tinnitus.

CLIPPINGS FROM THE LAY PRESS

WONDERS OF SURGERY

When one reads of the wonders performed at the recent meeting of the national clinical congress in New York City, it is not difficult to understand the world position attained by American medical and surgical science. This position was only recently emphasized by the award of the Nobel surgical prize to an American. These results have not been secured by isolated effort on the part of individuals but by their broad-minded interchange of views and their cooperation at just such gatherings as that of the congress mentioned.

The medical fraternity as a whole has been more really fraternal than the representatives of either of the other learned professions. There has been an inspiring spirit of mutuality, an absence of jealousy and clannishness, which might well be emulated. The results are manifest in scientific advances that have compelled the hearty recognition of the old world, which has had centuries of precedence as a factor in its progress.

The great value of these medical congresses lies in the fact that humanity benefits directly from the re-

sults of their deliberations and operations. The best surgical skill of the nation, for instance, was brought together at the recent clinical congress and sufferers everywhere will be helped by the knowledge and skill laid as an offering on the common altar of a great science. The subjects of the hundreds of clinics were not "experimented" on merely to exalt or exploit the skill of those who conducted the operations. They were used to illustrate the methods that had been perfected by the demonstrators at numerous previous operations and not only did they themselves benefit by the operations, which would have cost hundreds or thousands of dollars in the course of private practice, but the knowledge shared with the assembled surgeons will be passed on to countless thousands of patients in the future. So far from being "Roman holidays" these great medical and surgical clinics and those held in the hospitals throughout the country are the source and inspiration of the great advances being made by the medical and surgical science of the nation—in which advances the humblest as well as the highest share, the former even more abundantly than the latter.—*Kansas City Journal*.

FEES OF EXPERT WITNESSES

The next legislature should act on the State Bar Association's recommendation to regulate expert testimony in civil and criminal cases, particularly as regards fees. There is a wide popular distrust as to the expert witness. The impression exists that in many instances the expert witness is, in effect, associate counsel for the side in whose interest he testifies. That his learned opinion frequently serves justice or serves to prevent serious injustice may not be debatable. But the fact that such attainment is open to hire raises a question as to its dependability in the popular mind.

From what may be called the coldly practical viewpoint it may not seem fair to empower the state or the defense to levy on the valuable time or knowledge of the expert without just compensation. But if that position were tenable, then our theory of jury service, carrying the right to draft any citizen for jury service regardless of the value of his time or his earning capacity, excepting as specifically exempted, is wrong. Such a contention will not seriously be advanced. *Noblesse oblige* may in all truth be written of our citizenship. It imposes obligations on all citizens however vast or ordinary their affairs.

So the argument of adequate compensation from the state, as determined by professional or trade standards, may not be submitted. Instead, the expert witness should be at the call of the state just as any other citizen is. If equity should seem to demand a special dispensation for him in the matter of fees, the dispensation should be kept within the limits of decency and ethical dignity.

In any event, the fact that a person of wealth is defendant in a criminal charge ought not to make our courts a lucrative market wherein expert witnesses can peddle their wares.—*St. Louis Republic*.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC.

of The Journal of the Missouri State Medical Association, published monthly at St. Louis, Mo., required by the Act of August 24, 1912:

Editor: E. J. Goodwin, M.D., 3525 Pine Street, St. Louis, Mo. Publication committee: W. H. Breuer, M.D., St. James, Mo.; Scott P. Child, M.D., Rialto Building, Kansas City, Mo.; M. A. Bliss, M.D., Humboldt Building, St. Louis, Mo. Publisher: Missouri State Medical Association, St. Louis, Mo. Owners: Missouri State Medical Association (St. Louis, Mo.), a corporation composed of the members of the Association, numbering 2,925 at this date.

No bonds, mortgages or other securities outstanding against the Association.

Sworn to and subscribed before me this 9th day of October, 1912.

[SEAL]

ROBERT L. GURNEY,

Notary Public.

(My commission expires Dec. 16, 1914.)

THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

FEBRUARY, 1913

EDITORIALS

THE VULNERABILITY OF THE PHYSICIAN

Liability insurance has again been under discussion in connection with the numerous automobile accidents in our large cities, and there is a growing demand that automobilists shall be denied the protection of insurance against damages for injuries to persons and property. Last year the state insurance superintendent issued an order prohibiting liability insurance for automobilists, physicians, surgeons, dentists and pharmacists, but withdrew the restriction against automobilists.

There is much force to the argument that exemption from financial loss for injury to persons and property tempts to deeds of daredevilism and recklessness in automobile driving; but the number who indulge this spirit is very small, and it would seem unjust to the majority of drivers, who are careful and conscientious, to deprive them of legitimate insurance protection in order to curb the reckless few.

The automobile is a necessity for many physicians, but if they are to be denied insurance protection against automobile accidents, as they are now denied protection against damages in alleged malpractice suits, they certainly will be "up against it." It will be a case of getting it "comin' and gwine."

The discussion is one of moment for our members, as it gives point to the question of proper protection through the organization. The commercial companies who defend against malpractice suits are far less effective factors in defense of the accused physician than the State Medical Association.

Our defense provision has had a thorough test. It has been proved that the Association conserves the interests of the physician far more effectively than when commercial companies assume this serious obligation. But in order to provide the best service for members and do so without cost to them when sued, it is necessary to supply adequate funds for full protection. All members freely admit that this beneficial feature is worth all and more than the whole cost of membership, but it is not possible longer to meet our obligations in this and other directions under the pres-

ent low assessment. The by-laws provide that members shall be defended without cost to them, and yet some of those who have been sued have been compelled to pay a part of the expense incurred.

Several county societies have taken voluntary action in requesting a raise in the state assessment, and one county society did raise its dues sufficiently to pay a state assessment of \$4 per member, being under the impression that the House of Delegates had so ordered, and "they were willing and anxious to do their share and stand ready to do so now."

It is a question for every component society to consider; the matter must be settled sooner or later, and the sooner it is settled the larger will be the benefits and the greater the influence of the organization in all matters touching the welfare of the physician. The spirit of fraternalism and professionalism is strong throughout the state, the members realizing fully the necessity of holding together and looking after their own interests.

The Association is doing splendid work in every direction; the membership has increased and county societies are becoming factors of greater influence and power for good in their communities; a number of societies have raised the fees for professional services and the people have ungrudgingly acknowledged the justness of the increased charges. It is imperative that the members consider methods to improve and safeguard their own welfare and provide adequate means for protecting each other against assaults on their financial resources by unscrupulous persons. If the Association does not erect proper safeguards for its members we cannot logically expect anyone else to do it for us.

NO OPTOMETRY COURSE AT ST. LOUIS UNIVERSITY SCHOOL OF MEDICINE

A report having gained currency that the St. Louis University School of Medicine was considering the establishment of a course in optometry, inquiry for definite information on the subject was made of the university authorities which brought forth an emphatic denial of such intention on the part of the university. The letter from the Dean, published on another page, is a very enlightening, lucid, inclusive and logical exposition of the dangers of optometry laws.

The sophisticating practices of optometrists and the specious arguments they advance for legal recognition, are well understood by informed persons, but the vast majority of people would not distinguish between an optometrist and an oculist once the former has obtained state recognition.

On this as on other questions affecting the welfare of the people, the stand taken by the medical profession is for better services, although the public may not at once realize and fully appreciate the situation. The optometrist will try to befuddle the public mind, as in the past, concerning their actual standing and the justness of recognizing them as a part of the medical profession and their right to tamper with the human body when diseased or defective. The medical profession has no concern with the education of the optician whose province is to grind lenses and fit spectacle frames. A state license for optometry (opticians) would simply add another department to medicine, and establish another standard, thus recognizing two standards in the practice of a specialty.

THE SPEAKERS BUREAU

One of the most laudable activities of county societies affiliated with the State Medical Association and the American Medical Association, is that of conducting public meetings at which speakers, either from this state or from some other state, address the people on some subject of public health interest. The resultant influences for good flowing from these meetings cannot be overestimated, as the purposes and objects are highly appreciated by all classes. There should be, however, in this work, as in all undertakings affecting the entire medical profession, full cooperation with the state and national associations.

In order that the fullest benefits may be derived from these meetings both by the profession and by the people, our Committee on Public Policy and Legislation has notified all county societies that a bureau of speakers has been established in the office of the state secretary, where county societies may secure speakers without expense to the county society.

Those counties desiring to have speakers for public meetings should notify the state secretary as far in advance of the meeting as possible; if it is desired that a special subject be discussed or a special speaker invited, this information should be given with the first notice. Speakers may be had from near-by states if the occasion warrants; their expenses will be paid by the American Medical Association. Arrangements for such meetings should be started and notice of the contemplated meeting be given the state secretary at least a month in advance. The cooperation of lay bodies, such as women's clubs, school authorities, commercial clubs, religious and civic bodies, should be enlisted in order that the widest possible influence may be created for the success of the propaganda for hygiene, sanitation and disease prevention.

Arrangements are now under way for meetings in several counties, and other counties are pre-

paring to conduct such meetings. The committee invites the attention of all component societies and urges their cooperation in this method of instructing the people in public health matters.

A STATE ALIENIST

It is reported from Jefferson City that a bill has been prepared at the suggestion of Governor Major, providing for the appointment of an expert alienist who shall visit the four state hospitals for the insane at least once a month, to give instruction to the physicians in charge concerning the care and treatment of the inmates. The salary of this official is to be \$7,500 a year or more, if necessary, to induce a man with the proper training to accept the position.

Without commenting on this naive admission that the general run of appointees to state hospital positions are inefficient—a fact too well known to merit even passing mention—we call attention to the strange futility of expecting untrained minds to absorb sufficient knowledge in forty-eight lectures to render the state adequate service in treating the insane and preventing insanity; for the prevention of insanity ought to be one of the first duties of the staffs of our state hospitals for the insane.

It would be difficult to find such an official unless he were assured of permanency of tenure, for a man fitted to perform the duties mapped out for him would necessarily be one who was capable of earning an equal or greater amount in private practice. For obvious reasons it would be unwise, to say the least, for a physician to give up a lucrative practice for a state position that would pay a salary only equal to his income.

As to the feasibility of the plan, Kraepelin himself could do little for our state hospitals without the assistance of trained physicians in immediate charge. No such trained physicians can be induced to serve in state institutions unless they are assured of permanency of tenure during efficiency and good behavior, so that they may secure a thorough knowledge of the insane and their peculiar needs. Under existing conditions, which the appointment of a state alienist would not change in any manner whatsoever, physicians in hospitals for the insane have little incentive to thoughtful studies in psychiatry, for they have no hope of opportunity to apply such special knowledge. They are displaced at the end of their "term," not for inefficiency, but solely for political reasons.

In order to make the state alienist plan effective, we need the merit system in our state hospitals, and that system must be wholly divorced from political control and the appointments made for a better reason than party partisanship.

FORTY PER CENT. COMMISSION

A new scheme for obtaining patients and money is exposed on another page. This sort of trafficking in patients is most reprehensible. We direct attention of the members to the scheme so they may avoid being inveigled into it. The giving or taking of commissions is condemned and prohibited by all written and unwritten laws governing the conduct of reputable physicians. Don't subscribe.

NEWS NOTES

GRANDVIEW Sanitarium has recently finished the construction of a twenty-room addition with private bath in each room, and all modern apparatus for up-to-date equipment.

REBMAN & Co., 1120 Broadway, New York, have issued a complete catalog of their medical publications, which includes many notable volumes. A copy will be sent to members on request.

THE medical staff of the St. Louis City Hospital elected the following officers in January: Chairman, Dr. L. S. Lutton; vice-chairman, Dr. O. H. Brown; secretary, Dr. H. W. Loeb; treasurer, Dr. G. Gellhorn.

DR. R. D. CARMAN, of St. Louis, has accepted the position of roentgenologist with the Drs. Mayo at Rochester, Minn. His practice in St. Louis has been assumed by Dr. M. B. Titterington, formerly of Jerseyville, Ill.

THE license of Dr. M. Luther Springs, of Joplin, was revoked for a period of one year by the State Board of Health, January 22. Dr. W. W. Turver, of St. Louis, suffered revocation of his license for twenty-five years.

WE suggest that secretaries include in the reports of their meetings, a statement of the time and place of the next meeting, and, when possible, a short statement of the papers to be read at the coming meeting.

CLINTON COUNTY MEDICAL SOCIETY has decided to hold monthly meetings in the future. In the past, quarterly meetings were held, but the members discovered that their interests would be far better conserved by holding meetings more frequently.

DR. JABEZ N. JACKSON, of Kansas City, has been elected president of the Western Surgical Association. Dr. M. G. Seelig, of St. Louis, was elected second vice-president. The next meeting of the Association will be held in St. Louis in 1913.

SEDALIA physicians, members of the Pettis County Medical Society, have inaugurated a campaign in conjunction with the Boosters Club and other local organizations, for a city hospital. Bonds will be asked to obtain the funds for the building.

THE physicians of Hickory County recently held a meeting and resolved to form a county medical society to affiliate with the State Medical Association. Another meeting will be held soon and the organization completed and application made for a charter.

DR. JOHN GREEN, JR., of St. Louis, has resigned from the Medical Section, of which he had been elected chairman at the last annual session. Dr. C. H. Neilson, professor of medicine in the St. Louis University School of Medicine, has been appointed to fill the vacancy.

DR. E. F. YANCY, of Sedalia, elected orator on surgery at the Sedalia meeting, has resigned on account of a contemplated trip abroad during the period of our next annual session. Dr. Frank G. Nifong, of Columbia, has been appointed to deliver the oration on surgery in the place of Dr. Yancy.

THE annual dinner of the Medical Society of City Hospital Alumni of St. Louis, was given at the Washington Hotel, on January 9. There were in attendance over one hundred, including quite a number of guests. The speakers of the evening were Mr. William Marion Reedy, Judge Selden P. Spencer and Rev. William V. Berg.

DR. GEO. H. HOXIE, of Kansas City, delivered a lecture to an audience of 250 people at Marshall on the evening of January 24. His subject was "Preventive Medicine." The meeting was held under the auspices of the Saline County Medical Society on the invitation and with the assistance of non-medical organizations of Marshall.

FRANKLIN COUNTY MEDICAL SOCIETY held a reorganization meeting at Pacific, December 17, and started off with a firm resolution to hold regular meetings in the future. The new secretary, Dr. H. A. May, of Washington, makes an interesting report of the meeting and the prospects for the future, which is published on another page.

THE program committee has begun arranging the details of the program for the 1913 session. Members desiring to read papers should send their names and titles of the papers to the secretary of the section in which the paper is to be read. The names of the program committee will be found in the list of officers on page viii in the advertising section.

THE Surgeons' Club of St. Louis is a new organization formed with forty members. Dr. Francis Reder is president and Dr. W. S. Deutsch secretary. The Club will meet the third Wednesday in each month at the Medical Library building. It is the intention to have frequent operative clinics, symposia and presentation of specimens, as well as reading of papers.

ONE of the suits instituted against our members for alleged malpractice was recently dismissed by the plaintiff. The defense committee directed the defense of the physician. When she instituted the suit the plaintiff thought \$10,000 would be about the right amount to assuage her outraged feelings. The defense committee administered appropriate treatment so that these visions of grandeur have been wholly dissipated.

THE ST. LOUIS MEDICAL SOCIETY entertained Dr. L. Pierce Clark, of New York City, on January 11, when Dr. Clark delivered an address on "Some Modern Conceptions Regarding the Nature and Treatment of Epilepsy." On January 29, Dr. G. V. I. Brown, of Milwaukee, was the guest of the Society and addressed the meeting on the subject of "Widening the Palatal Arch for the Correction of Deflection of the Nasal Septum."

THE out-door school for tuberculous children at St. Louis, conducted by the St. Louis Society for the Relief and Prevention of Tuberculosis, has been very successful in accomplishing the purposes for which it was established. Several children have been benefited to such an extent that they were given certificates of health and returned to the public schools. The school board has taken over the out-door school and will conduct it as a part of the school system of the city.

THE MISSOURI ASSOCIATION FOR THE BLIND, with headquarters in St. Louis, has begun a campaign to raise \$6,000 for carrying on the work of the organization. The objects of the Association are to provide training, employment and recreation for the adult blind, and to disseminate information and instruction to prevent blindness. The

state school for the blind instructs sightless children between the ages of 6 and 20, but there is no provision for state care and instruction of blind adults.

THE very successful and instructive meetings of several county societies when the time was devoted to the study of clinical cases supplied by the members, should stimulate other societies to hold similar meetings. Randolph County and Macon County societies held such meetings recently, with an out-of-town doctor conducting the clinic, and they proved highly instructive and enlightening. The report of the Macon County meeting is published in this issue. Such meetings are, of course, for physicians only, and not open to the public.

"MOTOR CAR ANATOMY" is the title of a book of valuable information for the prospective purchaser of an automobile and the experienced automobilist intending to purchase a new car will find many hints and wise suggestions. The eighty pages are divided into eleven chapters—chapters short in structure, but long in facts. The author knows what he is talking about, and knows how to talk about it. The price is 50 cents, but a complimentary copy will be sent to our readers who mention the JOURNAL. The book is written by Franklin Pierce, 1801 Columbus Avenue, Anderson, Ind.

ARRANGEMENTS for the next annual meeting of the American Medical Association, to be held in Minneapolis, June 17-20, are well under way. The general meetings will be grouped in the buildings of the University of Minnesota. Hotel Radisson will be headquarters. Dr. S. Marx White is chairman of the hotel committee and will give attention to requests for reservations. Side-trip excursions to Yellowstone National Park, personally conducted over the Northern Pacific Railway, have been planned, starting June 20. Dr. H. K. Kimball is chairman of the excursions committee.

DR. A. W. TEEL, of Kahoka, Representative from Clark County in the Legislature, found the common towel and drinking-cup in use by the members of the Assembly on his arrival at Jefferson City. He at once introduced a resolution, which was promptly adopted, requiring the Commissioners of Permanent Seat of Government to supply individual drinking-cups and towels for the members and paper towels for the public. Dr. Teel also introduced a bill prohibiting the employment on railroads and boats of persons who habitually use intoxicating liquors or addicted to the use of morphin, opium or cocain.

DR. A. C. CRANK, of Canton, Lewis County, has been appointed Councilor of the 6th district, comprising the counties of Adair, Knox and Lewis, to fill the vacancy caused by the death of Dr. James Hanks, of Brashear. Dr. Crank has been a member of the Association for a number of years and served one term in the state legislature as representative from Johnson County, in which position he was watchful not only of the interests of his constituents, but also guarded the interests of the profession, and was a strong factor in preventing the passage of an optometry law by the Forty-Sixth General Assembly. He is familiar with legislative methods and knows the needs of the profession in the district he represents as well as in other parts of the state and should prove a wise counselor in directing the affair of the profession in his district.

DR. CARL L. ALSBERG has been appointed Chief Chemist in the Department of Agriculture, to fill the position held for twenty-nine years by Dr. Harvey W. Wiley. Dr. Alsberg is a graduate of the Columbia University (New York), and has been a Government chemist since 1908. According to newspaper dispatches, Dr. Alsberg is "going to be his own man," and gave out his platform as follows:

"I shall be my own man.

"I shall have the department's work on constructive lines.

"I shall endeavor to be a good public servant always.

"I shall enforce the pure food laws.

"I shall carry out the good work started by Dr. Wiley.

"I shall do all in my power to see that the public gets pure foods.

"I shall aim to get men of high standing for any vacancies by giving credit where credit is due."

Let us hope he will have the cooperation of his department, not the antagonism which forced the famous Dr. Wiley to resign. Dr. Willard D. Bigelow has been appointed a member of the Board of Drug and Food Inspection, which passes on all cases of alleged violation of the pure food law. Dr. Bigelow has been with the Bureau of Chemistry for twenty years, and served as Assistant Chief since 1903.

SINCE November 1, the following articles have been accepted for inclusion with New and Non-official Remedies:

Afridol, Farbenfabriken of Elberfeld Co.

Afridol Soap, Farbenfabriken of Elberfeld Co.

Cycloform, Farbenfabriken of Elberfeld Co.

Hexal, Riedel & Co.

Hexal Tablets, Riedel & Co.

Glycotauro, Hynson, Westcott & Co.

Glycotauro Capsules, 5 grs., Hynson, Westcott & Co.

Glycotauro Pills, 1 gr., Hynson, Westcott & Co.
Mereurial Ointment, Improved, H. K. Mulford Co.

Capsules Mercurial Ointment, Improved, H. K. Mulford Co.

Novatophan, Schering & Glatz.

Novatophan Tablets, Schering & Glatz.

Vaseules Cornutol, H. K. Mulford Co.

Calcium Glycerophosphate, Monsanto Chem. Works.

Slee's Diphtheria Antitoxin, Abbott Alkaloidal Co.

OBITUARY

HENRY DETTMER, M.D., of St. Louis, died at his home, Dec. 21, 1912. He was a graduate physician, but devoted his time to analytical chemistry. He was a native of Hanover, Germany. Aged 57.

JOHN D. PEISTER, M.D., of Creve Coeur, a member of the St. Louis County Medical Society, died Dec. 11, 1912, from injuries received in an automobile accident. He was 49 years old and graduated from the Missouri Medical College (now the Medical Department of Washington University) in 1888.

HENRY E. FERREL, M.D., of St. Louis, died in St. Louis, Dec. 18, 1912, by suicide. He was a graduate of Washington University Medical School, 1898; a member of the St. Louis Medical Society, U. S. Medical Reserve Corps, Army and Navy Club and prominent in military affairs of the state.

JAMES HANKS, M.D., of Brashear, died suddenly at his home Dec. 14, 1912. He was a member of the Adair County Medical Society and the American Medical Association, and Councilor of the sixth district of the State Medical Association. He graduated from the Bellevue Hospital Medical College in 1890. He was 53 years old.

DOKE GENTLE, M.D., of Fayette, Mo., president of the Howard County Medical Society and a member of the American Medical Association, died in a hospital in St. Louis, following an operation, Jan. 6, 1913. Dr. Gentle was a graduate of St. Louis University School of Medicine, 1908. He was highly esteemed by the profession and citizens of Howard County, and was an active and earnest worker in the organization.

CHARLES B. GRATIOT, M.D., of St. Louis, said to be the oldest native-born physician in that city, died at his home, Dec. 11, 1912, of heart disease. He graduated from the Missouri Medical College (now medical department of Washington University) in 1849, after having "read medicine" in the office of Dr. Joseph White. He distinguished himself in the cholera epidemic in St. Louis in 1849, shortly after he graduated. He was a descendant of Pierre Laeclède, the founder of St.

Louis. He retired from practice many years ago and had been in poor health for over a year. He was 85 years old.

JAMES R. MUDD, M.D., of St. Charles, died at a hospital in St. Louis after an illness of more than a year; aged 67. He was a native of Lincoln County, Mo. Dr. Mudd was a graduate of the St. Louis Medical College (now medical department of Washington University), receiving his degree in 1872, and settled in St. Charles in 1879. He was a member of the County and State Medical associations, and of the Railway Surgeons' Association. He was elected mayor of St. Charles on a municipal ownership platform and was the father of the city water works of that city; he was county coroner for twelve years and county physician for twenty-one years.

PAUL R. TAINTER, M.D., of Callao, Mo., was killed by his auto overturning with him Friday morning, December 27, at about 5 a. m. Dr. Tainter was born near Lagonda, Mo., in 1878. He graduated from the Kentucky School of Medicine in 1900, and located in Callao. He enjoyed a large practice; was a skilful, painstaking, well-trained, studious, energetic, faithful physician, untiring in his zeal. As a gentleman, he was dignified, courteous, affable and winsome, and had a host of friends. He was a member of the Macon County Medical Society, the Missouri State Medical Association and the American Medical Association, and was held in the highest regard by his confrères. He was a candid, frank man and physician, who always had opinions and was prepared to defend them. He was the cousin of Dr. Frank J. Tainter, of St. Charles. We miss him, we mourn his loss; we feel bereaved because of his untimely and tragic death. He was 32 years of age.—A. B. MILLER, M.D.

GEORGE CLINTON CRANDALL, M.D., was born June 18, 1865, near Elgin, Ill. He early removed to Michigan, where he attended the public schools of Trenton. After graduating from high school, he attended the Michigan Agricultural College, graduating from that institution in 1886 with the degree of B.S. He then entered the medical department of the University of Michigan from which he graduated in 1890. From 1890-1894 he was connected with the North Michigan Asylum for the Insane, rising from Junior Assistant to Assistant Superintendent in a period of four years. Deciding to take up internal medicine as a specialty, he spent the following eighteen months in the hospitals of Europe. He came to St. Louis in 1895 and was made Professor of Internal Medicine in the Marion Sims College of Medicine. When St. Louis University absorbed the Marion Sims-Beaumont College of Medicine, he was made Professor of Medicine in the Medical Department of St. Louis University, which chair he held at the time of his death. Dec. 5, 1912. Dr. Crandall was interested in the broader fields of medicine. He was a member of the National Society of

Tropical Medicine and Chairman of the American Medico-Psychological Society, as well as a member of the Missouri State and the American Medical associations. He was for two years president of the visiting staff of the St. Louis City Hospital, was a member of the consulting staff of St. Johns and Rebekah hospitals, and was Medical Director of the St. Louis Society for the Relief and Prevention of Tuberculosis. The intimate association between men in the same branch of medicine is apt to bring out many characteristics which are not above reproach, but in the case of Dr. Crandall it only seemed to make more evident his absolute honesty and to impress one with his spirit of fairness to patients, students and fellow practitioners. His ability as a physician needs no comment. The results of this we see among his patients in our daily walks. If I were asked for a sentence in which to sum up his life, I would quote the words suggested for the epitaph of Mark Twain, taken from *The Innocents Abroad*—"Got up, washed, and went to bed." Got up—yes, among the leaders of this profession. Washed, and kept clean as few of the best of us keep clean in professional life. Went to bed, exhibiting a heroism that few could imitate. Knowing for two months that death was absolutely inevitable, he smiled, made others cheerful and—went to bed.—W. P. ELMER.

JOHN T. MITCHELL, M.D., a native Missourian, was born sixty-five years ago. He was the eldest of ten children, born of sturdy, plain, well-bred parents, his father being a Presbyterian preacher, the Rev. J. B. Mitchell, for many years President of McGee College, of Macon County, Mo. It was at this college that Dr. Mitchell received his preliminary education and from which he was graduated in 1872, after which he was for two years professor of latin in his alma mater. In the middle seventies he organized and founded James Academy in Macon, Mo. Before entering on the study of medicine he was teacher in academic institutions and other schools for eight or ten years. His medical education was acquired at Jefferson Medical College, Philadelphia, from which he was graduated in 1879. The following year he came to Kansas City, where he has since lived and practiced his profession. On the organization of the Medico-Chirurgical College, he became professor of anatomy, which chair he held for a number of years. At the time of his death, Nov. 4, 1912, he was professor of anatomy of the Western Dental College, a position he has held for years. For the last fourteen years he has been secretary and professor of latin and toxicology in the Kansas City School of Pharmacy.

In 1881, he, together with about fifty other doctors of Kansas City, organized the Jackson County Medical Society, and for the last half dozen years he has been one of ten charter members, still enrolled in its membership. His death has broken this circle. As a member of the

Society, it is safe to say no man has been more devoted to its welfare and interests. He was often appealed to by members and especially by its officers, for counsel and assistance. Dr. Mitchell was a good doctor, keeping well abreast of the profession in its rapid advancement. Besides keeping up his knowledge of advanced thought in medicine, he was noted for his scholarly attainments in other departments of human effort. Beyond all he was a man of character, of noble character; no taint dulled his reputation in his dealings with his professional brothers. If all men were like him there were no need for a code. He was affable and true and hence had many warm and true friends. He was often blunt of speech, but of that kindly bluntness which never gave offense. He was broad-minded and charitable in his opinions. He loved and revered nobility and virtue as he despised sham and hypocrisy. The Jackson County Medical Society mourns with his brothers and sisters and kinsfolk its loss through his death; for we all lose very much.—A. A. FREYMAN.

2. Your charity cases will be treated free of charge.
3. Your pay patients will be cared for in the best of manner at very reasonable rates.
4. You will receive 40 per cent. of all fees (exclusive of hospital charges) received from your patients.
5. From your share of the fees received from the first patients you send to the hospital the amount of your stock subscription will be taken, so that without direct expense to you you will become a stockholder in what promises to become the most popular hospital in the West. You will find a picture of it in the accompanying announcement of the Polyclinic.

Cordially yours,
EMORY LANPHEAR.

AMERICAN HOSPITAL, ST. LOUIS, Mo.

I hereby subscribe for two (2) shares of stock of the American Hospital, of the par value of \$10.00 each, and agree that payment for same shall be deducted from my share of the fee received from the first patient (or patients) I shall send to the hospital for treatment. It is expressly agreed as a part of this contract that I am to receive 40 per cent. of all fees received from my patients sent to the hospital, exclusive of hospital charges.

.....M.D.
Address.....

CORRESPONDENCE

OFFERS FORTY PER CENT. COMMISSION

ST. LOUIS, Mo., Jan. 31, 1913.

To the Editor:—Inclosed find some correspondence which passed the last few days between Dr. Emory Lanphear and myself. I send you this correspondence with the request to publish it in the next issue of THE JOURNAL, so that our co-members may be warned in due time. I take this occasion to state that Dr. E. Lanphear has resigned as a member of the faculty of the American Medical College.

Very truly yours,
J. J. HOUWINK.

AMERICAN HOSPITAL, 3449 PINE STREET
ST. LOUIS, Mo., Jan. 28, 1913.

Dear Dr. Houwink:—I write to ask if you desire to have your name continued in the faculty of the American Polyclinic, considering these conditions, viz.:

1. I am "promoting" the American Hospital among country doctors on terms explained in the accompanying circular letter, which you do not approve.

2. I should expect you to take \$150 of the new stock, payable \$5 a month. This new stock is based on the actual value of the property—not on inflated value as heretofore.

Kindly let me know your desires as early as convenient.

Truly yours,
EMORY LANPHEAR.

AMERICAN HOSPITAL, 3449 PINE STREET
ST. LOUIS, Mo.

Dear Doctor:—If you join our association by signing and returning the attached blank you assume absolutely no responsibility; yet you gain the following advantages:

1. You will have a hospital connection such that your charity cases may be cared for at cost.

St. Louis, Jan. 28, 1913.

I hereby subscribe for.....shares of the capital stock of the American Hospital Association, a corporation of the City of St. Louis, State of Missouri, said shares of the par value of \$10 each; and I agree to pay for the same upon the following terms, to wit: On the first day of each month after date hereof I will pay to the treasurer of the American Hospital Association, or order, the sum of \$5, until all of the stock herein subscribed for shall be paid for. Whenever the amounts paid in shall amount to \$10 or more, in consideration of the above named payments, there shall be issued to me one share of the capital stock of the American Hospital Association. Presentment, demand, protest, notice of dishonor and notice of protest are hereby waived.

.....
Address.....

ST. LOUIS, Jan. 30, 1913.

Dr. Emory Lanphear, "Promoter" of the American Hospital and Secretary to the American Polyclinic, St. Louis, Mo.

Dear Sir:—I do not want my name continued in the faculty of the American Polyclinic, nor do I want any stock in the American Hospital.

The circular letter you are sending to country doctors is nothing but offering them a commission for sending you patients, a policy detrimental to the honest standing of the medical profession, poisoning to the weak brothers in the profession, and against the ethics of our profession the world over.

I do not see how you can ask members of the St. Louis Medical Society and of county medical societies to associate with you in your new money-making enterprise. You ought to know that their ethics prohibit such an association, and that if they join you and stay in their respective societies they act as hypocrites one way or the other.

I sincerely hope that no member of a medical society will join you. I will take care that those who join you, anyhow will be brought before the censors of their respective societies.

Wishing you a grand failure in your so-called medical association performance, with the conventional lie.

"Yours truly," J. J. HOUWINK.

SOCIETY PROCEEDINGS

ST. LOUIS MEDICAL SOCIETY

INVITATION TO ATTEND MEETINGS

ST. LOUIS, Mo., Jan. 31, 1913.

Dear Dr. Goodwin:—The programs arranged for the Saturday evening meetings of the St. Louis Medical Society by the program committee are of such exceptional merit, and one will find attendance interesting and instructive to the highest degree.

The officers of the St. Louis Medical Society are always pleased to have as guests our Mo. State Ass'n members and we extend a hearty invitation to any and all that may wish to attend the Saturday evening meetings.

Will you kindly publish the following programs in the State JOURNAL, and greatly oblige.

Yours fraternally,

LOUIS H. BEHRENS, President.

THE PROGRAMS

Saturday, February 15, 1913

Shockless Operations Through Anoci-Association Based on Experimental Research and 2,500 Clinical Cases (by invitation). Dr. George W. Crile, Cleveland, Ohio.

Saturday, February 22, 1913

Program supplied by out-of-town members of the American Laryngological, Rhinological and Otological Society (by invitation).

1. Address by Dr. H. Holbrook Curtis of New York.
2. When and How to Cure Certain Aural Affections, Dr. John F. Barnhill, Indianapolis, Ind.
3. Tuberculosis of the Larynx, Dr. A. Levy, Denver, Colo.

Saturday, March 1, 1913

1. An Experimental Study in the Therapy of Shock. Dr. Major G. Selig.
 2. On the Clinical Aspects of Shock. Dr. Francis Reder.
 3. A New Operation Avoiding the Artificial Anus by Using the Uterine and Vaginal Route. Drs. Felix W. Garcia, Robert Reber and Julius Hauck.
- Discussion to be opened by Dr. N. B. Carson and Dr. Major G. Selig.

Saturday, March 8, 1913

Program to be furnished by the Research Department of the Barnard Free Skin and Cancer Hospital.

Saturday, March 15, 1913

1. The Surgeon and the Ptosis Problem (by invitation). Dr. F. B. Lund of Boston, Mass.
- Discussion to be opened by Dr. Willard Bartlett.
2. Anesthesia by the Method of Intratracheal Insufflation with Demonstration of the Robinson Apparatus. Drs. W. E. Leighton and Thomas M. Davis.
- Discussion to be opened by Dr. F. B. Lund (by invitation).

Saturday, March 22, 1913

1. The Technic of the Sphygmogram with Remarks on the Use of Instruments of Precision in the Study of Cardiovascular Disease. Dr. George Richter.
 2. The Determination of Diastolic Blood-Pressure in Aortic Regurgitation. Drs. Albert E. Taussig and Jerome E. Cook.
 3. The Relation of Arteriosclerosis to Certain Ocular Conditions. Dr. Elsworth Smith.
- Discussion to be opened by Dr. Nathaniel M. Semple.

4. A Microscopical Study of the Conjunctival Vessels. Report on a Series of 700 Examinations. Dr. Wm. H. Luedde.

Saturday, March 29, 1913

Volkman's Ischemic Contracture: Clinical and Experimental. Lantern Slides and Presentation of Patients. Dr. Alexander E. Horwitz.

Saturday, April 5, 1913

Pericardial Adhesions. Dr. George Dock.

ROLLA DISTRICT MEDICAL SOCIETY

The Rolla District Medical Society held its annual meeting in Rolla, Dec. 5, 1912. It was one of the most successful meetings of the society that we have ever held. There were a large number of doctors present. A public meeting was held in Parker Hall, at 8 o'clock p. m., and Dr. F. J. Lutz, St. Louis, delivered a lecture on "Cancer," illustrated with lantern slides. Mr. George D. Barnard, the founder of the Barnard Free Skin and Cancer Hospital, honored the society with his presence at the meeting.

Dr. George Dock, St. Louis, delivered a lecture on "Thyroid Disease." Dr. M. F. Engman, St. Louis, read a paper on "Skin Cancer." Dr. R. H. McBaine, St. Louis, read a paper on "The Clinical Significance of Blood-Pressure." Dr. Joseph Charles, St. Louis, read a paper entitled "Should the Optometry Bill be Approved by the Medical Society?"

All of the papers were excellent and were of great interest to the society. At the conclusion of Dr. Charles' paper the following resolutions were offered by Dr. W. H. Breuer and unanimously adopted by the society:

WHEREAS, It has come to the knowledge of the Rolla District Medical Society that a member of the regular medical profession of this state and an officer in the Missouri State Medical Association, Dr. John Green, Jr., St. Louis, in a letter addressed to the secretary of the Missouri Optometry Association, which letter has been published and distributed to the public generally by the optometry association, has assisted and aided the opticians and so-called optometrists of St. Louis in their efforts to obtain legal recognition in this state as a special branch of medical practice, to wit, the fitting of glasses for the correction of imperfect vision; and

WHEREAS, Such written indorsement and support by Dr. Green have been heralded by the opticians as indicative of the approval of the organized medical profession of the bill prepared and proposed to be introduced in the next session of the legislature to legalize optometry in this state, thereby causing to be published a false and erroneous impression of the attitude of the medical profession toward this kind of legislation; therefore be it

Resolved, That the Rolla District Medical Society condemns such act of Dr. Green, and declares it to be derogatory to the good of the organized profession and the body politic; and be it further

Resolved, That these resolutions be spread on the minutes of this society and a copy sent to the chairman of the Judicial Council of the Missouri State Medical Association.

The physicians of Rolla gave the visitors a banquet at the Grant House, which was enjoyed by all present. The next meeting will be held in Sullivan, in June, 1913.

W. H. BREUER, M.D., Secretary.

BATES COUNTY MEDICAL SOCIETY

At the December meeting of the Bates County Medical Society resolutions were adopted condemning any movement to legislate incompetent men and women to practice any department of medicine without having first complied with the usual requirements met by all regular legalized physicians of the state. Following are the resolutions:

WHEREAS, The entering of the medical profession by the unqualified through the legislative doors of our state has become a source of annoyance to the profession and a menace to the public welfare in general; be it

Resolved, That the Bates County Medical Society use all honorable means to defeat the bill proposed by the optometry association legalizing opticians as a special and specific branch of medical practice, and all other near-cut routes to the medical goal other than the usual college course pursued by all regular physicians.

Respectfully submitted,
T. F. LOCKWOOD,
T. C. BOULWARE, Committee.

BENTON COUNTY MEDICAL SOCIETY

The regular meeting of the Benton County Medical Society was held in Warsaw, Tuesday, Dec. 3, 1912, in Dr. Savage's office.

Dr. Marion Dillon, Fairfield, president, called the meeting to order at 10 a. m.

Dr. W. H. Aber's transfer was received from the Johnson County Medical Society, read and a unanimous vote was cast accepting him to membership in this society.

Dr. Bradley, Windsor, formerly a member of this society, asked our society's endorsement of his application for position on the medical staff of the Nevada State Hospital. A unanimous vote was cast recommending Dr. Bradley to that appointment and the secretary was instructed to report this action to Dr. Bradley.

Dr. Gist, Frisco, presented a paper on "Muco-Enteritis," or "Acute Intestinal Catarrh," which was highly instructive and enjoyed by everyone present. The doctor outlined his cases as seen in actual practice, following with the treatment which had resulted best in his field of observation. The general discussion by all was enthusiastically entered into, because this class of diseases is met by every physician practicing among children. The three main points emphasized were: rest, antisepsis, and especially the care of the diet, which is so often forgotten by the parents or attendants in the country, who are prone to believe that whatever the child calls for they must give, not thinking of the danger of increasing the injury to the already inflamed bowel.

The next order of business was the election of officers for the ensuing year; the following were elected: president, Dr. H. E. Dunlop, Cole Camp; vice-president, Dr. H. E. Gist, Frisco; secretary-treasurer, Dr. J. R. Smith, Warsaw; delegate to the state association, Dr. W. G. Jones, Lincoln; alternate, Dr. Savage, Warsaw; censor for three years, Dr. E. L. Rhodes, Lincoln.

Dr. Dunlop, president-elect, suggests that we hold at least one open session at Cole Camp and Warsaw during the coming year.

A few minutes were spent in paying dues, after which the society adjourned. The next regular meeting to be held in January.

Those present were Drs. Dillon, Dunlop, Rhodes, Jones, Haynes, Gist, Savage, Pomeroy and Smith; Drs. Aber, Bay, Cuddy, Snively and Reser sent in their dues, not being able to attend.

The best year of growth in membership has been in 1912, and I think a better understanding and feeling exists among the profession. The present membership of the society is fourteen, out of a total of eighteen eligible physicians in the county.

J. R. SMITH, M.D., Secretary.

BUTLER COUNTY MEDICAL SOCIETY

The Butler County Medical Society met in regular weekly session in the county clerk's office at Poplar Bluff, Dec. 20, 1912, with Dr. Harwell, the vice-president, in the chair. The following members were present: Drs. Harwell, Mott, Smith, Redwine, Taylor, Ellis, Davidson, Seybold and Spaulding.

The application of Dr. J. A. Bryant for membership was read and motion passed that it be referred to the censors for immediate action. The board of censors reported favorably on the application and Dr. Bryant elected a member.

The secretary read a communication from Dr. F. W. Gale asking the Society to indorse his application for the position of assistant physician at the Farmington Hospital. On motion the candidacy of Dr. Gale was unanimously indorsed.

The election of officers was the next order of business and the following were nominated and elected by acclamation: president, Dr. J. Lee Harwell; vice-president, Dr. J. T. Redwine; secretary, Dr. J. A. Weber; treasurer, Dr. J. M. T. Smith; delegate, Dr. Wm. Spaulding; alternate, Dr. W. F. S. Taylor; censor for three years, Dr. B. L. Ellis.

Following the election of officers the retiring secretary and treasurer made reports of the society work and finances for the year 1912.

Dr. J. T. Redwine presented a patient, a young man who was afflicted with nervous twitches of the abdominal muscles, gurgling in the stomach and tympanites with no fever. In the discussion there developed a history of excessive sexual intercourse and masturbation and the examination showed aortic regurgitation. A diagnosis of chronic indigestion was arrived at.

Dr. Taylor read the paper he is to present before the pupils of the high school on sexual diseases which brought out a discussion, some opinions being favorable and some adverse.

The secretary's annual report was read and is given here:

As secretary of this society I wish to submit the following report of the work done during the year just closing. There have been 37 regular meetings, including this meeting, with an average attendance of 9½. We have 21 members in good standing and one delinquent; this is the largest membership in the history of the society.

During the year there was one public lecture delivered under the auspices of the society when Dr. Frank J. Lutz, of St. Louis, lectured on the subject of cancer before a good audience in the high school. The lecture was illustrated by lantern slides.

A series of lectures on sex hygiene to the pupils of the high school has been inaugurated with two lectures already given. It is hoped that the educational value of this course will be of such importance that the school board will be induced later to institute the work of medical inspection of school children.

Along the lines of public welfare, a committee has been appointed and is now collecting data to be pre-

sented to the city council regarding the source of the drinking-water of our city with suggestions for its improvement.

I am gratified to report that thirteen members have paid the annual dues for 1913 and one new applicant is pending. I desire to urge upon the members the great value of membership in the society and the necessity of paying annual dues promptly so that no loss shall be sustained of the important privileges of membership in the county and state medical associations.

A program for the study of the post-graduate course has been arranged which I am sure will be of great value to the members.

Among the members there is a most commendable spirit of fraternalism and close unity of purpose and all seem to be working to the same end, namely, the advancement of the interests of the society and of the science of medicine.

WM. SPAULDING, M.D., Secretary.

CAPE GIRARDEAU COUNTY MEDICAL SOCIETY

MEETING OF NOV. 25, 1912

Cape Girardeau County Medical Society held a special meeting, Nov. 25, 1912, with the following members present: Drs. Hope, Howard, Sander, Schulz, Tarlton, Wichterich, Wilson and Yount, and the following proxies of members not able to be present: Drs. Atkins, Chostner, Chandler, Ellis, Statler and Witmer.

The president stated that the special order of business was to vote on the indorsement of Dr. G. W. Vinyard of Jackson, for appointment as Superintendent of the Farmington Hospital for the Insane. On motion, the Society unanimously approved the candidacy of Dr. Vinyard for that position and recommended his appointment.

The applications for membership of Drs. W. W. Ford of Gordonville, and J. A. Van Amburg of Burfordsville, were approved by the censors and on motion they were duly elected to membership.

A case of appendicitis complicated with cystic ovary and retroversion of the uterus, was reported and created a spirited discussion on account of the case being placed in the hands of an osteopath, upon the recommendation of a dentist, for the purpose of having the appendicitis *rubbed out*, after the family physician had made all arrangements for surgical attention.

MEETING OF DECEMBER 3

The regular meeting was held at Cape Girardeau with the following members present: Drs. Atkins, Cunningham, Hope, Howard, Schulz, Tarlton, Vinyard, Wichterich, Wilson and Yount.

The application for membership of Dr. J. C. Vorbeck of Cape Girardeau, was received and referred to the board of censors.

Dr. R. P. Dalton of Cape Girardeau, was reinstated to membership, and Dr. Dayton I. L. Sebaugh of Millersville, was elected to membership.

The election of officers for 1913 resulted as follows: President, E. H. G. Wilson, Cape Girardeau; vice-president, T. R. Atkins, Jackson; secretary, D. H. Hope, Cape Girardeau; treasurer, W. N. Howard, Cape Girardeau; delegate, E. H. G. Wilson; Cape Girardeau; board of censors, H. L. Cunningham, Cape Girardeau (1 year); R. T. Henderson, Jackson (2 years); G. B. Schulz, Cape Girardeau (3 years).

The next meeting will be held on the second Monday in January.

E. H. G. WILSON, M.D., Secretary.

CASS COUNTY MEDICAL SOCIETY

CELEBRATION OF THE TENTH ANNIVERSARY

The Cass County Medical Society met in regular session at Harrisonville, December 12. The following members were present and took part in the meeting: Drs. T. W. Adair, W. F. Chaffin, H. S. Crawford, A. R. Elder, W. A. Fair, H. Jerard, D. S. Long, H. G. May, R. D. Ramey, B. B. Tout, J. S. Triplett. Dr. Robert M. Funkhouser, president Missouri State Medical Association, was the guest of the Society, and took part in the proceedings of the meeting. The following program was carried out:

"History of the Organization of the Cass County Medical Society," by J. S. Triplett, M.D., "The Status of the Medical Profession of Cass County Previous to Organization," by H. Jerard, M.D. "The Importance of Medical Organization for the Practicing Physician," by Robert M. Funkhouser, M.D., President Missouri State Medical Association.

These papers were all discussed by many of the members present. The Society tendered a vote of thanks to Dr. Funkhouser for his presence and address. The report of the secretary showed a membership of 34 for 1912.

The following officers were elected for 1913: president, Dr. B. B. Tout; first vice-president, Dr. E. M. Griffith; second vice-president, Dr. D. S. Long; secretary-treasurer, Dr. H. S. Crawford; member board of censors, Dr. J. S. Triplett.

At 7:30 p. m. the members, with their wives and guests, adjourned to the Hotel Harrisonville where they were served with a nice banquet in celebration of the tenth anniversary of the organization of the Cass County Medical Society. At the close of the banquet the following toasts were responded to:

"The Cass County Medical Society," by H. Jerard, M.D. "The New Year," by B. B. Tout, M.D. "The Country Doctor's Wife," by T. W. Adair, M.D. "Parody on the Physician's Wife," by W. F. Chaffin, M.D. "Personal Experience with the Auto as a Doctor's Vehicle," by W. A. Fair, M.D. "The Doctor's Prayer," by D. S. Long, M.D. "The Medical Profession of the Future," by Robert M. Funkhouser, M.D. "Impersonations," by H. G. May, M.D.

The occasion was one that will long be remembered by those present, and the Society can be proud of the results of ten years of organization.

H. S. CRAWFORD, M.D., Secretary.

CEDAR COUNTY MEDICAL SOCIETY

The Cedar County Medical Society met in regular session at the office of Dr. K. Hill, in Eldorado Springs, Tuesday, Dec. 31, 1912; Dr. Hill, president, in the chair. The following members were present: Drs. K. Hill, John R. Williams, E. H. Liston and J. W. Dawson.

The records having been destroyed by the recent fire, the minutes of the previous meeting were dispensed with.

This being the time of the annual election of officers, the following were elected for the ensuing year: president, Dr. K. Hill, Eldorado Springs; vice-president, Dr. R. B. Marr, Filley; secretary and treasurer, Dr. John W. Dawson, Eldorado Springs; delegate, Dr. Elton Smith, Stockton; alternate, Dr. K. Hill, and censors, Drs. John R. Williams, W. P. Royston, Eldorado Springs, and Isaac F. Marquis, Cedar Springs.

On motion made and carried, Dr. J. B. Scholl, of Eldorado Springs, was elected honorary member of the Society.

JOHN W. DAWSON, M.D., Secretary.

CHARITON COUNTY MEDICAL SOCIETY

Chariton County Medical Society held a very interesting meeting Dec. 12, 1912, in Salisbury. We met in Dr. G. W. Hawkins' office and elected the following officers for 1913: president, Dr. J. Franklin Welch, Salisbury; vice-president, Dr. Harry E. Tatum, Brunswick; secretary and treasurer, Dr. O. T. Morey, Salisbury; delegate, Dr. J. Franklin Welch; alternate, Dr. H. E. Tatum. Dr. J. S. Wallace of Brunswick was elected to represent us on legislative committee; Dr. M. B. Austin, of Brunswick, was elected to represent us on the Surgical Section at the State meeting and Dr. J. D. McAdams, of Prairie Hill on the Medical Section. The Censors for the Society are Drs. G. W. Hawkins, O. W. Hawkerson, Roanoke and C. B. Hughes, Keytesville.

It was voted that we meet 6 times a year instead of 12, so we will meet alternately at Brunswick and Salisbury, meeting in Brunswick on the second Thursday in February.

Dr. Hawkins read a paper on whether the fees should be raised or not, taken from the *STATE JOURNAL*. It was fully discussed and laid over until our next meeting.

Members present, Drs. J. W. Wallace, H. E. Tatum, M. B. Austin, J. F. Welch, J. D. Brummel, G. W. Hawkins and O. T. Morey.

O. T. MOREY, M.D., Secretary.

CLINTON COUNTY MEDICAL SOCIETY

The first quarterly meeting of the Clinton County Medical Society was held in Cameron, January 7. A mass of business matters had accumulated since the last meeting and required a great deal of time for its proper disposition, hence but little time was left for the regular scientific program.

Some of our best physicians are making earnest efforts to obtain appointments on the boards of managers of state hospitals and the state board of health, and they desire the society's indorsement. In addition, there was a discussion of the proposed optometry bill and the adoption of resolutions condemning this bad legislation.

Dr. C. M. McConkey of Lathrop, read a paper entitled "Commercializing the Practice of Medicine." This was a very interesting contribution and the very general discussion which followed its reading proved its timeliness.

By a vote of the members present it was decided to hold monthly meetings in future.

FRANK FULTON, M.D., Secretary.

COOPER COUNTY MEDICAL SOCIETY

The Cooper County Medical Society met at Boonville Dec. 3, 1912, with the president, Dr. E. L. Rice, in the chair, and the following members present: Drs. F. R. Smiley, C. S. Roberts, E. L. Rice, Geo. J. Weitz and R. L. Evans.

Several very interesting clinical cases were reported and discussed. This being the annual meeting the election of officers for 1913 was taken up and the following were elected: president, Dr. Wm. L. Abney, Blackwater; vice-president, Dr. Geo. J. Weitz, Boonville; secretary-treasurer, Dr. C. S. Roberts, Boonville; censor, Dr. E. L. Rice, Pilot Grove; delegate, Dr. Geo. J. Weitz, Boonville.

A resolution was adopted indorsing Dr. E. L. Rice of Pilot Grove, for the position of superintendent of the Colony for Feeble-Minded at Marshall.

R. L. EVANS, M.D., Secretary.

CRAWFORD COUNTY MEDICAL SOCIETY

The Crawford County Medical Society met in regular session at Steelville, Dec. 12, 1912.

Among other miscellaneous business following the regular program, the Society adopted resolutions disapproving the proposed optometry bill as proposed by the Missouri Association of Optometrists.

E. L. HUME, M.D., Secretary.

FRANKLIN COUNTY MEDICAL SOCIETY

Franklin County Medical Society met in called session in the offices of Dr. H. A. Booth, of Pacific, on Tuesday, Dec. 17, 1912, with the following members present: Drs. H. A. Booth, Chas. F. Briegleb, W. P. Mattox, B. E. Mankopf and H. A. May.

The president and the secretary being absent—having moved from the county several months previously—Dr. James P. Dunigan was elected temporary chairman, and Dr. Charles F. Briegleb temporary secretary.

The election of permanent officers resulted as follows: Dr. W. P. Mattox, Sullivan, president; Dr. H. A. Booth, Pacific, vice-president; Dr. H. A. May, Washington, secretary and treasurer. Dr. H. A. Booth was elected delegate to State Medical Association, and Dr. Chas. F. Briegleb alternate delegate.

No papers were read and no clinical cases presented, notice of the meeting having been given only a short time previously.

This was the first meeting of this society since February 6, 1912. We much deplore this condition of affairs in our society during the past year, and hope that in the future the meetings will be held regularly, and that the members will all take an active part in making Franklin County Medical Society a pleasant and profitable gathering for all who attend. We would urge every member to do his best to be present at each meeting, as by attendance only can the life of any society be maintained.

The next meeting will be held in the offices of Dr. H. A. Booth, at Pacific, on the first Tuesday in February, at 5 o'clock p. m.

H. A. MAY, M.D., Secretary.

GREENE COUNTY MEDICAL SOCIETY

The Greene County Medical Society held twenty meetings during 1912, with an average attendance of 18. The president, Dr. D. U. Sherman, has been present at most of the meetings and presided with dignity and impartiality. The program committee prepared excellent programs all the numbers of which were rendered except one. The committee on legislation did excellent work, having prosecuted successfully two chiropractors and forcing them to leave the city. The committee is at present investigating other cases of illegal practitioners. Those members of the Society who were doing lodge practice have either withdrawn from the Society or refused to accept further contracts from lodges, realizing that to do such cheap practice is to lower the standard of medicine and the dignity of the profession.

During the year six new members have been added to the rolls. We are trying to enroll every reputable practitioner in the county, but while we glory in our success and achievements during the past year we are also reminded of our misfortunes and losses, for every year the Grim Reaper visits our ranks and takes away one or two of our members. During 1912 we were called upon to pay tribute to the memory of Dr. M. H. Mayfield, Dr. N. F. Terry and Dr. J. T. Knowles.

There are in all medical societies a few faithful, energetic members who are present at all meetings and ready to take an active part in the work; a somewhat

larger number of less active ones who attend only meetings of special importance, and a still larger number of inactive brothers who are present and swell the attendance at the annual meeting and banquet. In this respect our Society is no exception but we know that all are loyal and will come to the aid of the profession when called upon.

At the annual meeting on Dec. 13, 1912, the following officers were elected for the ensuing year: President, Dr. Edwin F. James; vice-president, Dr. G. B. Lemmon; secretary, Dr. T. O. Klingner; treasurer, Dr. L. B. Farnsworth; censor, Dr. W. P. Patterson; delegate, Dr. E. B. Fuson; alternate, Dr. T. A. Coffelt.

T. O. KLINGNER, M.D., Secretary.

GRUNDY COUNTY MEDICAL SOCIETY

The Grundy County Medical Society held its annual meeting Dec. 3, 1912, at Trenton and elected the following officers for the ensuing year: President, Dr. J. F. Fair, Trenton; vice-president, Dr. D. K. Porterfield, Hickory; secretary, Dr. T. E. Moore, Trenton; treasurer, Dr. W. D. Fulkerson, Trenton; delegate, Dr. E. J. Mairs, Laredo; alternate, Dr. H. L. Lowry, Tindall; censor 3 years, Dr. W. H. Winningham, Trenton.

There was no other business before the society and after an informal discussion of current topics, the society adjourned.

T. E. MOORE, M.D., Secretary.

HENRY COUNTY MEDICAL SOCIETY

Henry County Medical Society held its meeting, Dec. 18, 1912. The meeting was called to order by the president, Dr. B. B. Barr. Members present: Drs. Barr, Gibbins, Shankland, C. A. Smith, of Osceola, Haire, Poague and Bradley.

Dr. Haire reported a case of gangrene of the toe, foot and leg, in a patient with diabetes mellitus and cirrhosis of the liver, resulting from chronic alcoholism. The toe was amputated, but on account of the rapid extension of the gangrene, it was decided to be useless to amputate farther as it would only hasten the fatal termination. This very interesting case was discussed by all present.

Dr. R. L. Smith, of Johnson City, was elected to membership.

The following officers were elected for 1913: president, Dr. Leo Wright, Lowry City; vice-president, Dr. W. H. Gibbins, Clinton; secretary and treasurer, Dr. W. M. Shankland, Clinton; censor, Dr. S. A. Poague; delegate, Dr. R. D. Haire and alternate, Dr. A. E. Derwent.

WM. M. SHANKLAND, M.D., Secretary.

HOLT COUNTY MEDICAL SOCIETY

The Holt County Medical Society met at Forest City, Thursday, January 2, the president, Dr. W. C. Proud, in the chair. Drs. B. T. Quigley, Mound City, J. M. Davis, Craig, F. C. Hogan, Bigelow, F. E. Bullock, Forest City, and Drs. Thatcher, Evans, Wood and Proud, of Oregon, answered to roll call.

Committee reports, together with the secretary and treasurer reports, were taken up and disposed of. Election of officials for the ensuing year resulted in the election of president, Dr. F. E. Hogan, Bigelow; vice-president, Dr. O. W. Nauman, Craig; treasurer, Dr. C. L. Evans, Oregon; secretary Dr. W. S. Wood, Oregon. The president-elect appointed Drs. Thatcher, Bullock and Quigley on executive committee.

Dr. Quigley asked for an indorsement of his fellow classmate, Dr. Jos. M. Hale, of Dearborn, for superintendent of State Hospital No. 2 and vouched for Dr. Hale's qualifications. Motion unanimously carried.

The proposed optometry bill now before the legislature was discussed, condemned and a committee appointed to confer with our representative and state senator regarding same.

The financial condition of the society being in a healthy condition, county society dues for the ensuing year were remitted. Dr. Proud was elected delegate to the State Medical Association and Dr. Roy Miller, alternate.

The afternoon session was taken up with the scientific part of the program, Potts' fracture being the principal subject of discussion.

Mound City was selected as the place of the next meeting, which will be the first Thursday in April.

W. S. Wood, M.D., Secretary.

HOWARD COUNTY MEDICAL SOCIETY

Howard County Medical Society met at Fayette, Dec. 6, 1912. Present, Drs. Wright, Lewis, Moore, Richards, Payne, Burgwin and Watts. Dr. Richards, the president, called the meeting to order but, being called away, Dr. Burgwin, the vice-president, took the chair with the understanding that Dr. Richards, the newly elected president for 1913, would give his inaugural address at the January meeting and Dr. Duke Gentle, the retiring president, deliver his address at the same time and place.

There being no clinics or papers, Dr. Burgwin was called on to query the members on embryology; Drs. Moore, Lewis, Wright and others on placental and maternal circulation, and other members on fetal respiration, physiological and pathological products.

Dr. Lewis gave a very interesting account of the removal of a glucose specimen from the alimentary tract of an infant 18 months old.

Dr. Watts spoke of the placental bruit and soufflé and the importance of distinguishing in utero fetal heart sounds and whether heard in the normal position.

All the members enjoyed the free discussion and it is hoped that our Society will be more interesting and useful to the doctors in 1913 than in any other year.

We shall watch the incoming legislature with special attention to optometry laws. The human eye is an essential organ and should be treated only by those who have prepared themselves for such work by a general medical education.

C. W. WATTS, M.D., Secretary.

HOWELL COUNTY MEDICAL SOCIETY

At the regular meeting of the Howell County Medical Society, Dec. 5, 1912, the following officers were elected for the ensuing year: Dr. J. B. Cunningham, of Pomona, president; Dr. J. H. Elliott, vice-president, and Dr. A. H. Thornburgh, secretary and treasurer. Dr. Elliott was elected a delegate to the State Medical Association which will be held in May, and Dr. E. P. Cowgill, of Moody, was elected alternate. Dr. H. J. Rowe, of Willow Springs, was elected a member of the Board of Censors for a term of three years, and Dr. Ford A. Barnes, of Koshkonong, was elected to serve on the committee on public health and legislation.

Dr. W. L. Wuestoff read a paper on "Tonsillitis and Its Effects," following which a general discussion was entered into by Drs. Thornburgh, Shuttee, Nichols, Elliott and Wuestoff.

Dr. Will G. Patton, of Thayer, was elected to membership.

Mrs. C. E. Bain and her daughter, Miss R. Bain, were visitors at the meeting and announced the opening of their new sanatorium, "Oak Harbor."

Present, Drs. H. C. Shuttec, A. H. Thornburgh, D. J. Nichols, J. H. Elliott and W. L. Wuestoff, of West Plains; Dr. H. J. Rowe, of Willow Springs; E. P. Covgill, of Moody; Ford A. Barnes, of Koshkonong, and J. B. Cunningham, of Pomona.

J. H. ELLIOTT, M.D., Secretary.

LAFAYETTE COUNTY MEDICAL SOCIETY

The Lafayette County Medical Society held its regular bi-monthly meeting at Higginsville, Dec. 10, 1912. The meeting was called to order by the president, Dr. C. T. Ryland. The following members were present: Drs. Braecklein, Carthrae and Carthrae, Jr., Clayton, Dawson, Fischer, Moore, Mackey, Oetting, Ryland, Schneider, Schreimann and Williams. Visitor, Dr. Nasse of Wellington, Pettis County Medical Society.

Dr. J. G. W. Fischer of Alma, read a paper entitled "Enuresis." This was well received and extensively discussed by the members.

Dr. J. F. Mackey of Odessa, presented a patient, a boy three years old, with a patulous foramen ovale, who had been blue from birth. The case elicited very considerable discussion and a variety of opinions.

Drs. Lerton V. Dawson and James L. Downing both of Odessa, were elected to membership.

This being the annual meeting the following officers were elected for 1913: President, Dr. W. A. Braecklein, Higginsville; first vice-president, Dr. J. G. W. Fischer of Alma; second vice-president, Dr. Henry Williams of Odessa; secretary-treasurer, Dr. Paul B. Clayton, reelected; reporter, Dr. Ferdinand Schreimann of Concordia; censor, Dr. Ferdinand Schreimann.

FERDINAND SCHREIMANN, M.D., Reporter.

MACON COUNTY MEDICAL SOCIETY

The Macon County Medical Society has had an unusually successful year.

In addition to the regular monthly meetings we have two special clinic days. In June Dr. C. C. Conover of Kansas City held a heart clinic for us. About twelve different heart cases were presented (we furnish the patients). In addition Dr. Conover used plates and drawings. He is at home with the heart. His clinic was pronounced equal to any heard in the large cities. All were delighted with Dr. Conover.

At our November meeting Dr. George Eusterman, senior assistant to Dr. Graham, Rochester, Minn., conducted the clinic. Fifteen cases of gall-bladder disease, gastric and duodenal ulcer, chronic appendicitis, etc., were presented. From 9:30 a. m. until 3 p. m. the time was given to examination of cases. From 3 p. m. until 5 p. m. his regular clinic lecture was delivered which will be found in full in a later issue of this JOURNAL.

Dr. Eusterman exhibited a skill and training in diagnostic methods and an ability as a clinical teacher that was a great inspiration to all present.

The special value of these clinics is in seeing the cases examined in our presence, the careful history-taking, and the methods of conducting a thorough examination by a well trained man.

Our aim is to hold these clinics twice each year. We invite physicians from other counties. At the last clinic there were present forty physicians. Twenty-nine of our members were present out of a possible thirty-two.

We are proud of our Macon County Medical Society. At the December meeting the officers for the year 1913 were elected as follows: President, Dr. A. L. Cambrie of Atlanta; vice-president, Dr. L. M. Thomp-

son of Macon; secretary-treasurer, Dr. A. B. Miller of Macon, reelected; delegate, Dr. G. C. Lyda of Atlanta; alternate, Dr. Wm. A. Welch of Callao.

A. B. MILLER, M.D., Secretary.

MONITEAU COUNTY MEDICAL SOCIETY

The Moniteau County Medical Society met in Tipton, Dec. 12, 1912, at 2 p. m. The following were present: Drs. J. P. Burke, Jr., Freudenberger, DeVilbiss, Williams, Fry, Redmon, Marsh, Wilson, H. W. Latham and L. L. Latham. Visitors, Drs. F. J. Lutz, St. Louis and W. J. Calvert of Columbia.

Dr. Lutz addressed the Society on the subject of "Fractures of Long Bones and Their Treatment." He said that a careful study of several hundred cases of these fractures treated in the usual way by the use of splints, bandages, extension, counter-extension, passive motion, etc., had shown the results were less satisfactory than when treated by a method which he suggested and described in detail. In outline this method consisted of reduction of the fracture, gentle massage of the tissues around the site of fracture to relieve pain and promote absorption of effused blood and lymph; the application of a very light, well-padded splint, loosely bandaged to the fractured limb, removing the dressings daily and massage the limb; and at an early date begin active motion of the limb.

There was an interesting discussion of the subject in which everyone present took part.

The proposed optometry bill was discussed and the society voted unanimously to oppose its enactment. The secretary was ordered to notify the representative and state senator of the action of the society and ask their help in defeating the bill when it comes before the legislature. He was also instructed to express in the columns of THE JOURNAL the disapproval of this society of any member expressing his personal views of the bill in much a manner as to lead the public to suspect that the profession as a whole favors the enactment of the bill.

The following officers were elected for the year 1913: president, Dr. J. M. Robertson, Bunceton, vice-president, Dr. G. S. Wilson, Fortuna; secretary-treasurer, L. L. Latham, Latham; delegate, J. P. Burke, Jr., California; member board of censors, P. E. Williams, Tipton.

Following the afternoon session a banquet was served in the City Hotel. All the members who failed to attend this meeting missed a feast and had to help pay for the entertainment anyway as the bills were paid out of the society's funds. The moral is when there's a good time on the program you ought to be on hand.

After the banquet a public meeting was held at the Methodist Church and Dr. Calvert of the state university medical department delivered an interesting and instructive address on "Public Health." He took up the contagious and infectious diseases and their prevention, the medical problems connected with the construction of the Panama Canal, the sanitation of the home, etc.

A vote of thanks of the society was extended to both Dr. Lutz and Dr. Calvert.

L. L. LATHAM, M.D., Secretary.

PETTIS COUNTY MEDICAL SOCIETY

MEETING OF DEC. 16, 1912

The Pettis County Medical Society met in regular session at the court house, president McNeil presiding.

Members present: Drs. C. A. McNeil, Dunlap, Morley, Monroe, Collins, Bohling, Titsworth, Bishop, Evans, Wood, Dyer, Alderman, Kelly, W. J. Ferguson, Campbell, Wills, Long, Holtzen and Beckemeyer; visitor, Dr. A. R. Kieffer, St. Louis.

Result of election of officers follows: president, Dr. A. J. Campbell; vice-president, Dr. W. A. Beckemeyer; secretary, Dr. E. E. Holtzen; treasurer, Dr. Guy Titsworth; censor, Dr. W. H. Evans (to succeed Dr. S. G. Kelly); delegate, Dr. F. R. Morley.

Dr. Kieffer was asked to address the society and gave a very interesting talk on "Ectopic Pregnancy," after which a vote of thanks was tendered Dr. Kieffer.

W. A. BECKEMEYER, M.D., Secretary.

MEETING OF JAN. 13, 1913

The Pettis County Medical Society met in called session at the court house, President Campbell presiding. members present: Drs. Campbell, C. A. McNeil, W. J. Furguson, Beckemeyer, Long, Albers, Shy, Titsworth, Trader, Evans, Dyer, Dunlap, Wills, Monroe, Wheeler and Holtzen. Visitors present: Hon. J. T. Montgomery, Hon. E. W. Couey, Drs. Tucker, Staats, Fansler and Barnum.

The president, after briefly stating the object of the meeting, called on Mr. Montgomery, the president of the board of directors of the City Hospital, for further explanation. Mr. Montgomery gave a very interesting talk on the great need of a larger and more modern city hospital, and advised the members of the society to start a campaign for the issue of bonds for the construction of a new hospital. Mr. Couey followed with a talk along the same line.

After a lengthy discussion by all present a motion was made and seconded that it is the opinion of this society that the question of a bond issue for \$50,000 for the purpose of building a hospital should be put before the voters. Motion carried.

Motion made and seconded that the chair appoint a committee of five members to meet with the executive committee of the Seania Boosters Club to discuss the bond issue. Motion carried. Appointed: Drs. Monroe, W. J. Ferguson, Wills, Titsworth, and Beckemeyer.

Motion made and seconded that the chair appoint a committee of three members to meet with the city council for the same purpose. Motion carried. Appointed: Drs. Albers, Long and Trader.

Motion made and seconded that the chair appoint a committee of three members to meet with the Ministers' Alliance for the same purpose. Motion carried. Appointed: Drs. Evans, Dyer and Shy.

Motion made and seconded that a vote of thanks be extended to Mr. Montgomery for his talk. Carried.

E. E. HOLTZEN, M.D., Secretary.

PIKE COUNTY MEDICAL SOCIETY

The Pike County Medical Society met in regular session at Louisiana, Dec. 2, 1912, in the directors' room of the Farmers' Bank, the president, Dr. D. M. Pearson, in the chair.

Dr. T. Guy Hetherlin read a very interesting paper, "How to Make the Society One of the Best," which was filled with good hints. Dr. J. W. Dreyfus read a very instructive paper entitled "Sprains." A general discussion followed the reading of both papers.

The president appointed a committee to draft a letter of condolence to Dr. J. H. Story of Clarksville, death having claimed his wife, recently.

The following officers were elected for 1913: president, Chas. L. Bankhead, Paynesville; first vice-president, E. M. Bartlett, Clarksville; second vice-president, T. Guy Hetherlin, Louisiana; third vice-president, J. H. Story, Clarksville; secretary, F. V. Keeling, Elsberry; treasurer, J. W. Dreyfus, Louisiana.

The society discussed the question of taking up some special line of study for the coming year. The next meeting will be held at Elsberry, January 6.

F. V. KEELING, M.D., Secretary.

PULASKI COUNTY MEDICAL SOCIETY

The Pulaski County Medical Society met in Richland, in the office of Dr. W. L. Ragan, Dec. 31, 1912, at 3 p. m.

Dr. C. Mallette gave an interesting report of a case which he had treated with old tuberculin. A general discussion followed.

Supper was had at White's Hotel after which the members returned to the office of Dr. Ragan where a formal meeting was held, the president, Dr. Ragan, presiding. Present: Drs. Murphy, Stebbins, Ross, Mallette and Oliver. The applications of Dr. J. L. Titterington, Richland, Dr. H. W. Klostermann, Laquey, and Dr. J. E. Rayl of Crocker, were voted on and all were elected to membership in the society. They were made acquainted with the action of the society and deliberated in the proceedings of the balance of the meeting.

The consideration of a new constitution and by-laws was then taken up and proposals made, which will be voted on at the next regular meeting.

The election of officers for the coming year resulted as follows: president, Dr. W. L. Ragan, Richland; vice-president, Dr. N. I. Stebbins, Crocker; secretary-treasurer, Dr. E. A. Oliver, Richland; delegate, Dr. H. C. Murphy, Richland; censors, Drs. J. E. Rayl, Crocker; H. C. Murphy, Richland; J. B. Ross, Swedeborg.

It was moved and seconded that any member absenting himself from two consecutive regular meetings shall be fined two dollars. Motion carried.

Resolutions opposing the passage of the proposed optometry bill were unanimously adopted and a copy will be sent to our senator and representative.

All the members appreciate the value of the county medical society and are earnest in its maintenance.

E. A. OLIVER, M.D., Secretary.

SALINE COUNTY MEDICAL SOCIETY

The Saline County Medical Society held its regular meeting at Marshall, Dec. 10, 1912, with a good attendance. This was the annual meeting and the scientific program was therefore curtailed.

Dr. J. E. Harris, Marshall, read a very interesting paper on "Routine Treatment of Confinement Cases." This brought out a very general discussion that proved highly profitable.

The election of officers for 1913 was the next order and the following were elected: president, John R. Hall, Napton; first vice-president, G. A. Aiken, Malta Bend; second vice-president, D. F. Manning, Marshall; secretary-treasurer, Floyd W. Tuttle, Mt. Leonard.

FLOYD W. TUTTLE, M.D., Secretary.

SCHUYLER COUNTY MEDICAL SOCIETY

Schuyler County Medical Society met in regular session at Lancaster, Jan. 6, 1913. The meeting was called to order by Dr. B. B. Potter, vice-president. Members present: Drs. B. B. Potter, W. A. Potter, W. F. Justice, E. L. Mitchell, J. H. Keller, A. J. Drake and J. B. Bridges.

A motion was made and carried by the unanimous vote of the members indorsing the Rolla District Medical Society resolutions condemning the action of Dr. John Green, Jr., St. Louis, in his indorsement of the optometry bill.

A resolution was offered and adopted by a unanimous vote condemning the optometry measure to be introduced at the coming session of our state legislature and instructing the secretary of the society to write our senator and representative from this district and

county and urge them to use their influence against said measure.

The next meeting will be held in Lancaster, April 24, at which time subjects appertaining to public health will be taken up and the public is invited to attend.

The following officers were elected for the ensuing year: president, Dr. B. B. Potter, Lancaster; vice-president, Dr. W. J. Zieber, Queen City; secretary-treasurer, Dr. J. B. Bridges, Downing; delegate, Dr. E. L. Mitchell, Lancaster; alternate, Dr. W. A. Potter, Lancaster.

The subject for consideration for this meeting being, "Pneumonia," Dr. A. J. Drake read a paper on "Etiology and Symptoms;" Dr. W. A. Potter, on "Pathology;" Dr. E. L. Mitchell, on "Treatment." All were interesting papers and were discussed by the members present.

J. B. BRIDGES, M.D., Secretary.

SCOTT COUNTY MEDICAL SOCIETY

Scott County Medical Society met at Benton, Dec. 18, 1912, with the following members present: Drs. S. J. Wade, U. P. Haw, Benton; W. H. Westcoat, Oran; J. A. Milem, P. M. Malcolm, Sikeston; F. R. Frazer, Commerce; W. D. Finney, Chaffee; G. S. Cannon, Farnfelt.

The following officers were elected for 1913: president, Dr. S. J. Wade, Benton; secretary-treasurer, Dr. G. S. Cannon, Farnfelt, reelected.

Drs. W. D. Finney, G. A. Sample, M. L. Underwood and W. T. Daugherty, Chaffee, were elected members.

Dr. P. M. Malcolm of Sikeston was unanimously indorsed for the superintendency of Farmington State Hospital.

The next meeting will be held in Sikeston, Monday, April 7, 1913.

G. S. CANNON, M.D., Secretary.

ST. CHARLES COUNTY MEDICAL SOCIETY

The St. Charles County Medical Society met in regular session in the city hall at St. Charles, Nov. 13, 1912, and was called to order by the president, Dr. S. R. Johnson, at 2:30 p. m.

Dr. J. C. Edwards, O'Fallon, read a very interesting paper on "What is Life?" Dr. F. J. Tainter, St. Charles, presented a very practical and thoughtful essay on "The Treatment of Fractures as a Whole." Both papers were freely discussed and proved instructive and helpful.

The election of officers for 1913 was next in order and the following were elected: president, Dr. J. M. Jenkins, St. Peters; vice-president, Dr. C. M. Corley, St. Paul; secretary, Dr. T. L. Hardin, St. Charles; treasurer, Dr. Carl Bitter, St. Charles; censor, Dr. A. A. Gossow, St. Charles.

T. L. HARDIN, M.D., Secretary.

STE. GENEVIEVE COUNTY MEDICAL SOCIETY

The Ste. Genevieve County Medical Society held its annual meeting Dec. 26, 1912, the president, Dr. Rutledge, in the chair.

After the disposal of routine business, officers were elected as follows: president, Dr. G. M. Rutledge, Ste. Genevieve; vice-president, Dr. J. A. Wilkins, Ste. Marys; secretary-treasurer, Dr. R. W. Lanning, Ste. Genevieve; delegate, Dr. F. E. Hinch, Ste. Genevieve; board of censors, Drs. J. H. Morgansteen, N. W. Jarvis and R. W. Lanning.

The president, appointed as a committee on public health and legislation, Drs. Hinch, Wilkins and Lanning.

The treasurer's report for the year 1912 was read and approved.

R. W. LANNING, M.D., Secretary.

ST. JOSEPH-BUCHANAN-ANDREW COUNTY MEDICAL SOCIETY

MEETING OF DECEMBER 4

The St. Joseph-Buchanan-Andrew County Medical Society met Dec. 4, 1912, at their rooms, Corby-Forsee Building, St. Joseph, president, Dr. J. I. Byrne, in the chair. There were forty-six members present.

The banquet committee was not ready with a complete report and on motion of Dr. Fassett, seconded by Dr. Minton, the committee was given full authority to complete arrangements and report at next regular meeting.

The application of Dr. Wm. John Hunt for membership in the society was received and read, and referred to the proper committee for their report. The society thereon proceeded with the annual election of officers for the year 1913, as provided in the by-laws, with the following result: president, A. L. Gray; first vice-president, A. B. McGlothlan; second vice-president, Floyd Spencer; secretary, W. F. Goetze; treasurer, J. M. Bell; censors, J. J. Bansbach, long term, L. J. Dandurant, unexpired term of A. L. Gray; delegate, W. T. Elam in place of C. C. Jefferies; alternates, C. B. Cambell and J. I. Byrne.

On motion of Dr. Fassett, a vote of thanks was tendered the retiring officers.

MEETING OF JANUARY 2

The regular meeting of the St. Joseph-Buchanan-Andrew County Medical Society was held at their rooms, Thursday evening, January 2, president, A. L. Gray, in the chair. Twelve members present.

Dr. W. J. Hunt was unanimously elected a member of this society, his application having received the endorsement of the censors. The application of Dr. Arche E. Pope was presented and read, and referred to the proper committee for investigation.

The banquet committee had not completed a settlement with the Elks Club, so were unable to make a complete report. On motion of Dr. Vandivert, seconded by Dr. H. Lee, this committee was instructed to settle all the bills and bring in their final report at the next regular meeting.

The report of Dr. J. M. Bell, treasurer, for the year of 1912, was read and ordered spread on the minutes. The report of W. F. Goetze, secretary, was read and ordered spread on the minutes.

Dr. A. L. Gray, president, outlined his policy regarding the proceedings of this society during the coming year and suggested that the society add the three following committees to the list of standing committees: Tuberculosis Committee, Medical Service Committee, Membership Committee. He also suggested that the society have a "Get Together Meeting," to consist of a smoker and refreshments, about once every three months.

Dr. Dan Morton and Dr. A. H. Vandivert made some very instructive talks supporting the president, especially regarding the appointment of a Medical Service Committee, and on motion of Dr. J. M. Bell, seconded by Dr. H. Lee, the president was instructed to appoint the three committees as outlined above. Thereupon the president announced the following appointments:

Executive Committee: O. G. Gleaves, P. I. Leonard, L. A. Todd. Public Health and Legislation: C. R. Woodson, J. F. Owens, H. S. Forgraves. Program Com-

mittee: C. W. Fassett, Herbert Lee, W. J. McGill. Library Committee: A. B. McGlothlan, Chas. Geiger, C. W. Fassett. Medical Service: Daniel Morton, O. B. Campbell, W. T. Elam. Membership Committee: T. J. Lynch, G. W. Boteler, F. X. Hartigan. Tuberculosis Committee: O. C. Gebhart, C. H. Wallace, J. W. Heddens.

Dr. O. C. Gebhart, made a very interesting report of the progress of the Tuberculosis Society in St. Joseph.

Dr. Jacob Geiger, reported a case of "Diffused Peritonitis with Gangrenous Appendicitis," with ultimate recovery in a very young child.

W. F. GOETZE, M.D., Secretary.

TANEY COUNTY MEDICAL SOCIETY

The Taney County Medical Society met in Dr. Mitchell's office at Branson on December 18, 1912, with the president, Dr. Mitchell, in the chair.

Members present: Drs. G. B. Mitchell F. V. Baldwin, Elizabeth McIntyre, R. N. Irwin, G. W. Gloyd, T. H. Humphreys.

The scientific part of the program was dispensed with and the time devoted to a general discussion of economic questions. Each member presented some good ideas on the business side of the profession. It was finally agreed that our "anemic" purses would receive more benefit from better collections than from an increase in the schedule of fees. The secretary was requested to formulate a plan and present it at the next meeting of the society, of a workable method for securing more prompt settlements for services rendered. In a future issue of THE JOURNAL we will be pleased to give the readers an outline of the plan we adopt with the hope that it may prove of benefit to other county societies.

While our members do not forget the semi-public position they occupy as guardians of the health of the people, we realize at the same time that the physician is but mortal after all and requires about the average amount of food and raiment that other mortals do.

F. H. HUMPHREYS, M.D., Secretary.

VERNON COUNTY MEDICAL SOCIETY

The Vernon County Medical Society met in regular session in the circuit court room. After the regular order of business, Dr. G. W. Petty was reelected president; Dr. Chas. W. Musser, vice-president; and Dr. J. T. Hornback was reelected secretary of the Society for 1913. A resolution was adopted by the Society opposing the optometry bill.

Those present from out of town were Drs. Howard Hill, F. C. Neff and H. M. Lyle, all of Kansas City; Drs. Altham and Musser, of Metz; Dr. Crume, of Richards; Drs. Rooks and Sellars of the State Hospital for the Insane; Albright, of Bronaugh, and Farrington, of Moundville. Those present from Nevada were: Drs. Dulin, Willson, Bohannon, Craig, Petty, Hornback, Lancaster, Williams, Callaway, Yater.

Dr. Dulin of Nevada read a paper on "Goiter," which received applause and was freely discussed by Drs. Hill, Lyle and Neff of Kansas City, also by others.

Dr. Hill gave a lecture on "Utero-Vaginal Prolapse." This was a magnificent lecture and well illustrated by photographs and wood cuts. Dr. Lyle's paper on "Vaccine Treatment of Skin Diseases," showed that he is a master of his specialty and Dr. Neff soon convinced the Society that he is highly skilled in his special work, that of diseases of children.

At 6 o'clock the Society enjoyed a splendid banquet at Smith's Cafe, after which the Society again met but in open session. A large number of the ladies of Nevada were present. Dr. Dulin read a paper, the

subject being, "The General Practitioner." Dr. Neff then delivered an able address on the subject, "Infant Feeding," which was highly appreciated by the audience.

WEBSTER COUNTY MEDICAL SOCIETY

The Webster County Medical Society held its quarterly session in the Carnegie Library, Marshfield, Dec. 18, 1912. The meeting was called to order by the president, Dr. C. H. McHaffie of Rogersville, at 10:30 a. m. Drs. Highfill, McHaffie, Sayers, Atkins, Bailey, Beatie, Bruce, Rabenau and Good were present.

Reports of the secretary and treasurer were read and approved. Business matters and reports of cases were then taken up and with their discussion took up the remaining time until noon when we adjourned to the Webster Hotel for dinner.

The afternoon session opened at 1:30, all the doctors being present. The election of officers took place, resulting as follows: president, Dr. Ezekiel M. Bailey, Elkland; vice-president, Dr. John W. Good, Fordland; secretary-treasurer, Dr. John R. Bruce, Marshfield; delegate, Dr. W. R. Beatie, Marshfield; alternate, Dr. W. J. Rabenau, Fordland; censor for 3 years, Dr. J. S. Sayers, Rogersville.

Our next meeting will be held at Fordland on the third Wednesday in March.

A set of resolutions in regard to the fee splitting question was drawn up and discussed and voted to be laid on the table until our next meeting.

JOHN R. BRUCE, M.D., Secretary-Treasurer.

MISCELLANY

COURSE ON OPTOMETRY WILL NOT BE ESTABLISHED

ST. LOUIS UNIVERSITY SCHOOL OF MEDICINE
FORMERLY MARION-SIMS-BEAUMONT

E. P. LYON, PH.D., M.D., DEAN
ST. LOUIS, MO.

DR. E. J. GOODWIN, Secretary, Missouri State Medical Association, St. Louis, Mo.

Dear Dr. Goodwin:—The report that St. Louis University contemplates the organization of a school of optometry is incorrect. A committee called on the university authorities and asked for such a course of study. The matter was referred to me. I made a study of the literature of the subject from both the optician's and the medical points of view. I also carried on an extensive correspondence with educational authorities, ophthalmologists and others competent to give opinions. On the basis of this investigation, the university settled the matter, not from the standpoint of the physician nor from that of the optometrist, but from a broad view of the welfare of the public. We put before ourselves two questions: (a) Should the fitting of spectacles by non-medical men be recognized as a profession and licensed by the state? (b) Should legitimate educational institutions prepare candidates for this profession? We came to the conclusion that

both questions must be answered emphatically in the negative.

Every proposition for such a course of study involves the study of the physiology of the eye and the consequent recognition of diseased conditions of that organ. There is absolutely no doubt that no training less than a full medical course, with subsequent special study, can fit a man for the grave responsibilities involved in this proposition.

A license means recognition and endorsement. We conclude that many people would not discriminate between the licensed, *untrained* optometrist and the licensed, *competent* ophthalmologist, and that more harm would be done by such license and recognition than by the present state of affairs, bad as the latter is. The university, therefore, decided not to organize a course or school of optometry.

Yours sincerely,
E. P. LYON, Dean.

CONDEMNING THE OPTOMETRY BILL

In addition to the resolutions adopted by component societies and published in the January issue opposing the passage of the optometry bill now before the General Assembly, the following have been adopted and copies sent to state senators and representatives:

ST. LOUIS MEDICAL SOCIETY

Dr. F. J. Lutz introduced the following resolution:

WHEREAS, Certain opticians in Missouri are actively seeking legislation in this state under the name of "optometry," which legislation will give them the sanction of the state to examine eyes and prescribe glasses as a remedy for visual defects; and,

WHEREAS, The qualifications required in the petition for such legislation are entirely inadequate to justify the state in conferring such important privileges upon any class of people; and,

WHEREAS, The bill proposed to be presented for enactment will not prevent the so-called "optometrist" from practicing ophthalmology, which is one of the most important branches of the practice of medicine as defined by the statutes of this state; and,

WHEREAS, Such action on the part of the state will tend to elevate to the dignity and importance of a profession in the minds of the public, persons wholly devoid of the essential qualifications for professional attainments; and,

WHEREAS, The result of such license will be to establish a class of uneducated and poorly qualified oculists, who will occupy practically the same legal position in the community as is now occupied by the most accomplished physicians; and,

WHEREAS, Such invasion of the field of medicine by legislative enactment would be detrimental to the health of the people; now, therefore be it

Resolved, That in the opinion of the St. Louis Medical Society the granting of such license to opticians or so-called "optometrists" will do great harm to the public by reason of the fact that it gives to persons who are ignorant of the fundamental principles of diagnosis; ignorant of the profound relation that frequently exists between ocular fatigue and serious nervous disturbances; ignorant of the many deep-

seated intra-ocular affections; the sanction of the state in the attempt to do work which should only be done, and can only be done, by educated, duly qualified and licensed physicians; and be it further

Resolved, That, in the opinion of the St. Louis Medical Society, the effort of the self-styled optometrists to obtain such legislation should be discouraged and opposed in every legitimate manner and on all occasions; and be further

Resolved, That the recent indorsement of a proposed optometry bill by Dr. John Green, Jr., a member and former officer of this Society, is repudiated and declared not to be representative of the opinion of the St. Louis Medical Society, but was wholly and entirely an expression of his personal views concerning the provisions of this particular bill; and be it further

Resolved, That a copy of these resolutions be sent to our Senators and Representatives, and published in the *Bulletin* and *THE JOURNAL*.

The motion to adopt was seconded by Dr. R. M. Funkhouser.

Dr. J. C. Morfit moved as a substitute that the resolutions be printed in the *Bulletin* and made the special order of business at the next meeting of the Society. Dr. Schwarz seconded the motion. After discussion the vote was taken on the substitute and lost, 56 to 8. The motion to adopt the resolutions then carried, 72 to 6.

BATES COUNTY MEDICAL SOCIETY

WHEREAS, The entering of the medical profession by the unqualified through the legislative doors of our state has become a source of annoyance to the profession and a menace to the public welfare in general, be it

Resolved, That the Bates County Medical Society use all honorable means to defeat the bill proposed by the optometry association legalizing opticians as a special and specific branch of medical practice, and all other near-cut routes to the medical goal other than the usual college course pursued by all regular physicians.

Respectfully submitted,
T. F. LOCKWOOD;
T. C. BOULWARE, Committee.

BUTLER COUNTY MEDICAL SOCIETY

WHEREAS, There is to be introduced in this legislature a bill recognizing the practice of optometry as a special branch of medical practice, and

WHEREAS, The proposed legislation is opposed to the safeguarding of the interests of the public by allowing a profession to be recognized which has not the full requirements to properly examine eyes, and fit glasses where possibly a diseased condition exists; be it

Resolved, That the Butler County Medical Association, realizing the dangers of such proposed legislation, deplores the introduction of such a bill; and be it further

Resolved, That this association urge our representative to use his vote and influence against the proposed bill.

J. LEE HARWELL, Pres.,
J. A. WEBER, Sec.,
ALFRED R. ROWE,
WM. SPAULDING,
W. F. S. TAYLOR, Committee.

A large number of component societies have adopted similar resolutions, but did not send copy for publication.

BILLS IN GENERAL ASSEMBLY

The following are the titles of bills that have come to our attention in which the profession ought to take an interest, in addition to the optometry bill.

AN ACT

To amend Section 1367 of Article VI, Section 1454 of Article IX, Section 1470 of Article X, Section 1484 of Article XI, Section 1501 of Article XII, and Section 1544 of Article XVI, all of Chapter 19, entitled "Charities and Corrections," of the Revised Statutes of Missouri for the year 1909, and to repeal Section 1368 of Article VI of said chapter, and to enact in lieu thereof a new section relating to the same subject to be known as Section 1868.

This act contemplates making the boards of managers of state eleemosynary institutions non-partisan by increasing the number of members to six, and requiring that not more than three members shall belong to the same political party; the act also authorizes the change of name of the State Tuberculosis Sanatorium at Mt. Vernon, to the Missouri State Sanatorium.

AN ACT

To regulate the manufacture and sale, and to prevent the adulteration and misbranding of disinfectants, deodorants, antiseptics and germicides, to regulate the labeling of such preparations, to provide for the standardization of disinfectants, deodorants, antiseptics and germicides, and providing penalties for the violation of this act.

This act requires that all disinfectants manufactured or sold in Missouri shall bear a label showing the phenol co-efficient, and that its germicidal value shall be established by the application of the method in use and approved by the hygienic laboratory of the United States Public Health Service.

AN ACT

To promote the public health by protecting certain employees in this state from the dangers of occupational or industrial diseases, and providing for the enforcement thereof.

This bill is introduced by the Committee on Public Health and Legislation of our Association, as a substitute for another bill of the same nature, but less comprehensive. The bill was compiled by State Factory Inspector W. W. Williams and Dr. A. S. Barnes, Jr., of St. Louis.

Other bills in the Assembly, of which we have not yet received copies, are a Workmen's Compensation Act and an Act to Regulate Expert Testimony.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

CALCIUM GLYCEROPHOSPHATE is monohydrated normal calcium glycerophosphate $\text{Ca}(\text{CH}_2\text{OH}.\text{CHOH}.\text{CH}_2)\text{PO}_4.\text{H}_2\text{O}$, containing 90 per cent. of anhydrous salt. It is a white powder, almost tasteless, slightly soluble in water, easily soluble in dilute acids. Glycerophosphates were introduced as "nerve foods" on the belief that the phosphorus was in a readily assimilable form. Recent animal experiments indicate that glycerophosphates possess no advantage over inorganic phosphates in phosphorus metabolism. Dose 0.2 to 0.65 Gm. in powders, wafers, capsules or tablets suspended in water or syrup, or dissolved by the addition of sufficient citric acid or diluted hydrochloric acid.

Calcium glycerophosphate, Monsanto, is a non-proprietary article and complies with the tests laid down for calcium glycerophosphate. Monsanto Chemical Works, St. Louis, Mo. (*Jour. A. M. A.*, Jan. 4, 1913, p. 45).

SLEE'S REFINED AND CONCENTRATED DIPHTHERIA ANTITOXIN is prepared according to Banzhaf's method. Supplied in packages containing 1,000, 2,000, 3,000, 4,000 and 5,000 units, in vials and also in syringes. The Abbott Alkaloidal Co., Chicago, Ill. (*Jour. A. M. A.*, Jan. 4, 1913, p. 45).

VACULES CORNUTOL contain cornutol 30 c.c. in sealed ampules. The air in the container is removed before sealing whereby, it is claimed, deterioration is retarded. H. K. Mulford Co., Philadelphia, Pa. (*Jour. A. M. A.*, Jan. 4, 1913, p. 45).

REFORM IN MEDICINES

PEEKE'S EPILEPSY CURE.—"Professor" W. H. Peeke, 4 Cedar St., New York, sells a "cure for fits." Peeke claims that his remedy is "absolutely harmless" and that "the tender babe, the delicate woman, the sturdy vigorous man can alike take it." Analysis made in the A. M. A. Chemical Laboratory indicated the presence of about 13.7 gm. of sodium bromid and about 4.1 gm. of ammonium bromid in each 100 c.c. Alcohol, alkalis and iodids were absent. A little alkali, probably sodium carbonate and a bitter substance, probably gentian, were present. The analysis shows that this preparation like every other "cure for fits" owes its effect to bromids and thus is not a "perfectly safe remedy" as claimed (*Jour. A. M. A.*, Nov. 30, 1912, p. 1990).

IDEX AND IODIN PETROGEN.—Iodex is said to be an ointment of iodine, containing 5 per cent. of therapeutically free iodine. What the significance of this term "therapeutically free" is we cannot tell. The prepara-

tion probably contains no considerable amount of free iodine. Iodin petrogen is claimed to be a solution of iodine in petrogen—a proprietary preparation essentially equivalent to liquid petrox, N. F.. From the nature of petrogen, it is probable that the greater part of the iodine is not in the free state. Neither preparation has been submitted to the Council on Pharmacy and Chemistry, which is an indication that the claims made for them would not be verified (*Jour. A. M. A.*, Nov. 30, 1912, p. 1992).

MUM.—This is a salve said to be a deodorant and found to contain: salicylic acid, zinc oxid, glycerin, water, a tallow-like fat and traces of essential oils (*Jour. A. M. A.*, Nov. 30, 1912, p. 1993).

PERUNA, ITS DYING GASP.—In an advertising campaign which promises to be its last, the Peruna Company—"Dr." Hartman—attempts to get even with the medical profession for the exposures which have come through its efforts. In this advertisement it is claimed that physicians have offered to sell their testimonials to the Peruna Company and particular mention is made of a letter said recently to have been received from a physician, who among other things claims to be medical referee for his county, a member of his state medical association and a member of the A. M. A. Investigation indicated that the writer, Dr. John L. Brown, Frenchburg, Ky., is a morphine addict and that he is neither the medical referee for his county, a member of the Kentucky Medical Association nor of the American Medical Association (*Jour. A. M. A.*, Dec. 7, 1912, p. 2084).

THE NEWER DIGITALIS SUBSTITUTES.—The recommendations for the newer digitalis preparations are often ambitious and include such claims as lessened toxicity, increased rapidity of action, diminished irritant effects permitting intramuscular or subcutaneous administration and absence of disagreeable manifestations on the alimentary tract in comparison with the older galenical preparations. The hitherto published reports on the clinical value of the newer substitutes are variable and conflicting; hence the need of unbiased and carefully controlled trials by methods which permit of some accuracy of judgment instead of the vague conjecture which attends so many of the bedside observations and conclusions. Lately three of the more recent substitutes for digitalis preparations—digalen, digitalone and digipuratum—have been investigated at the University of Cambridge by biologic methods in respect to their relative stimulating powers and toxicities as well as their irritant properties and their relative rates of absorption from the gastro-intestinal canal as compared with a physiologically standardized tincture of digitalis. The results of the investigation are summed up in the general statement that, all things considered it appears that not one of the new preparations is able to make a successful bid for superiority over an active tincture of digitalis, though it must be admitted that one of these, digipuratum, has repeatedly been found to be a uniformly potent digitalis extract (*Jour. A. M. A.*, Dec. 7, 1912, p. 2074).

EXOPHTHALMIC GOITER AND SUGGESTION.—Throughout the ages the suggestibility of patients suffering from exophthalmic goiter has made them favorite subjects for all sorts of therapeutic experiments. In the older history of medicine much is said about goitrous conditions which could be cured by various methods such as the wrapping of a dead snake around the neck, or the touch of a rope by which a man had been hanged. In more recent years thyroid, thymus, parathyroid, serum from thyroidectomized animals and other substances were at first thought of value but later found

unavailing. Recently a series of cases of hyperthyroidism have been reported in which various operations on the nose and throat have brought great relief of symptoms (*Jour. A. M. A.*, Dec. 14, 1912, p. 2154).

FRIEDMANN'S TREATMENT FOR TUBERCULOSIS.—This method of treatment does not appear to be based on any new principle. It represents merely another effort to utilize for curative and preventive purposes the antigenic substances in the tubercle bacillus. This effect is secured, so it is said, with living bacilli, devoid of virulence and invasiveness, injected intramuscularly. The bacilli are said to be derived from the turtle, but the method by which they are deprived of virulence is withheld. In view of the probably false hopes aroused, the newspaper notoriety which this essentially secret treatment is receiving is to be regretted (*Jour. A. M. A.*, Dec. 14, 1912, pp. 2158 and 2159).

BAUMÉ ANALGESIQUE BENGUÉ.—In Great Britain it is advertised to the public. In this country the exploiters find that the space in cheap medical journals is a cheaper method of getting the stuff to the public. Analysis indicated menthol 18 per cent., methyl salicylate, 20 per cent.; lanolin, anhydrous, 54 per cent., and a fat, apparently lard, 8 per cent. (*Jour. A. M. A.*, Dec. 14, 1912, p. 2173).

THE EVOLUTION OF A PROPRIETARY.—As a general proposition, medicinal compounds are not born but evolved and often the proprietary and the official preparation may be based one on the other, while both are usually based on some preparation which antedates them. Lysol, the equivalent of which—liquor cresolis compositus—is official in the United States Pharmacopeia, is a good example of the way in which manufacturers appropriate the discoveries of others, develop them and turn them to proprietary use. A study of the history of lysol shows that the use of soap as a means of making cresol soluble in water was gradually brought out and merely appropriated by the exploiters of lysol (*Jour. A. M. A.*, Dec. 14, 1912, p. 2173).

JIREH DIABETIC FOOD.—This is one of many vicious products on the American market that contain practically as much starch as ordinary flour but are sold under misleading claims as safe products for diabetics. Jireh flour was found to contain 73.02 per cent. carbohydrates, while ordinary wheat flour contains about 75 per cent. (*Jour. A. M. A.*, Dec. 14, 1912, p. 2174).

LYMPH INJECTIONS IN CHRONIC PARENCHYMATOUS NEPHRITIS.—In a case of chronic parenchymatous nephritis while the patient appears well and to enjoy the best of health, the use of lymph injections of the Animal Therapy Company, Chicago, is not advised. The administration of a remedy which might do harm should be undertaken only under the clearest indications. If the remedy contains as claimed a mixture of foreign protein it might easily injure a diseased kidney (*Jour. A. M. A.*, Dec. 14, 1912, p. 2176).

ASPIRIN AND ACETYSALICYLIC ACID.—Depending on the peculiarity of the patient both aspirin and acetylsalicylic acid produce gastric disturbances which are not uncommon. Linke found acetylsalicylic acid, von Heyden, to be the equal of aspirin, both chemically and therapeutically (*Jour. A. M. A.*, Dec. 14, 1912, p. 2195).

THE GERMAN COUNCIL ON PHARMACY AND CHEMISTRY.—The committee appointed by the Congress for Internal Medicine—the German Council on Pharmacy and Chemistry—now consists of Penzoldt, Gottlieb, W. Heubner, G. Klemperer, A. Schmidt and Spatz, nearly all editors as well as internists. The secretary of the

A. M. A. Council on Pharmacy and Chemistry has been appointed a consulting member. The organized medical press has agreed to submit all advertisements to critical inspection before accepting them (*Jour. A. M. A.*, Dec. 14, 1912, p. 2195).

WHAT'S WRONG.—Quoting figures from a recent census bureau bulletin, the *Medical Standard* claims that the consumption of "patent medicines" is increasing in this country and suggests that, "possibly there is something wrong with us" (the medical profession). While the amount of patent medicines manufactured in this country during recent years may have increased, the consumption by the people of the United States has diminished greatly. Lessened home consumption has driven the American patent medicine manufacturer to seek foreign markets and this explains the increased production. But there is something wrong with us, namely, the pernicious habit of prescribing proprietary mixtures, for the public is awakening to the fact that there is little difference between an "ethical proprietary" and a "patent medicine." A further something that is "wrong with us" is our easy going tolerance which makes possible the existence of such publications as the *Medical Standard* (*Jour. A. M. A.*, Dec. 21, 1912, p. 2264).

QUACKS RUN OUT OF KENTUCKY.—Recently a concern styling itself variously the "Advanced Medical Science Institute," "Radio-Electric Company," "Witman Medical Company" and "Delesh-Etts Company" with an alleged capital stock for each of these concerns of from \$25,000 to \$2,000,000 and claiming to be a part of the State Land Company of Oklahoma, with branches in a dozen or more states, began operations in one of the principal office buildings in Louisville, Ky. Flaming advertisements appeared in the newspapers telling of expert diagnosticians, scientific apparatus and numerous, miraculous cures. On investigation the State Board of Health of Kentucky found that the "expert diagnostician" was not a physician and that the only medical man was employed at a salary of fifteen dollars per week. The scientific apparatus consisted of a cheap fluoroscope by means of which it was claimed that gallstones, lung and kidney lesions, etc., could be seen. Through the vigorous prosecution of the state board of health the promoters were fined and also forced to agree to cease their operations, at least so far as the state of Kentucky is concerned (*Jour. A. M. A.*, Dec. 21, 1912, p. 2273).

COMMERCIAL HASTE VERSUS SCIENTIFIC CONSERVATISM.—An example of business haste was furnished by an announcement made April last at the International Congress on Tuberculosis. Countess von Linden and her co-workers read papers at the Congress describing a new remedy for tuberculosis, the result of work carried out under the advice and direction of the late Professor Finkler. The remedy was stated to be a combination of iodine with methylene-blue and a combination of copper with lecithin, which was to be put on the market by a German firm "as soon as possible." Professor Selter now reports that in experiments made by him no marked difference was observed between the treated and the control animals. His clinical trials also showed no decisive benefit from these remedies. Selter protested to Countess von Linden and her colleagues against the premature publicity which was contemplated, but without avail. In the published reports no mention of Selter's unfavorable results was made. No doubt the connection with a commercial concern is strong temptation to optimism in such research (*Jour. A. M. A.*, Dec. 28, 1912, p. 2319).

DEMAND CLEAN ADVERTISING.—There are many medical journals which editorially rank high and for which a subscription price is charged that makes the carrying of advertisements for worthless proprietaries entirely unnecessary. For instance, there are the *Medical Record* and the *American Journal of Obstetrics* published by William Wood & Co., the *Annals of Surgery* (J. B. Lippincott Company), and the *American Journal of the Medical Sciences* (Lea and Febiger), each of which costs \$5 per annum—sufficient to warrant a demand that the advertising pages be kept clean. While sporadic protests against the nostrum advertisements will be without avail a protest from a hundred subscribers to these journals, which are run merely as a financial venture, would quickly have the desired effect. That an advertising policy which rejects nostrum advertisements is not impossible of attainment in privately owned medical journals has been proven by three high grade publications, the *Cleveland Medical Journal*, the *Southern Medical Journal and Surgery*, *Gynecology and Obstetrics* (*Jour. A. M. A.*, Jan. 4, 1913, p. 53).

FRAUDULENT ADVERTISING IN HIGH-CLASS MEDICAL JOURNALS.—It is the favorite retort of the publishers of some medical journals, when criticised for carrying advertisements of fraudulent proprietary remedies, that they are just as capable of determining what constitutes a fraudulent or worthless preparation as is the Council on Pharmacy and Chemistry. The absurdity of the contention is well illustrated by the appearance in the *Annals of Surgery*, which claims that its advertisements are submitted to, and passed on by, some of the most noted surgeons in the country, of an advertisement of Mothersill's Seasick Remedy, a rank patent-medicine advertised under false claims (*Jour. A. M. A.*, Jan. 4, 1913, p. 57).

THE CONSTRUCTIVE WORK OF THE COUNCIL ON PHARMACY AND CHEMISTRY.—During the first two or three years of its existence, a single phase of the work of the Council on Pharmacy and Chemistry—the exposure of the many worthless or fraudulent proprietary medicines foisted on the medical profession—attracted attention. The manufacture of a satisfactory brand of calcium glycerophosphate by the Monsanto Chemical Works is the direct result of the report of the Council on the poor quality of the calcium glycerophosphate on the American market. Vacules Cornutol represents a further improvement by the H. K. Mulford Co. in the reliability of their ergot preparations. Experiments having shown that the deterioration of ergot preparations is retarded when they are kept away from air, the firm now offers its cornutol in sealed containers from which the air has been removed (*Jour. A. M. A.*, Jan. 4, 1913, p. 58).

MICAJAH'S UTERINE WAFERS.—This nostrum was analyzed in the A. M. A. Chemical Laboratory and found to consist essentially of burnt alum, boric acid and borax. These are the "well-known, approved and time-tried antiseptics, astringent and alterative medicaments" for which Micajah & Co. claim so much. That a mixture of borax and alum may be of value in some cases can easily be granted. To say, however, that such medicaments will quickly and permanently cure gonorrhea, urethritis, endometritis, etc., is foolish, false and vicious. In spite of the fact that the medical profession has been apprised of the fraud and deceit connected with its exploitation, this preparation is still advertised in several medical journals. Some of these are *Medical Record*, *Therapeutic Gazette*, *Medical Times*, *New York Medical Journal*, *American Journal*

of *Surgery and Interstate Medical Journal* (*Jour. A. M. A.*, Jan. 4, 1913, p. 65).

RHEUMATICIDE.—The so-called Wallace Treatment for Rheumatism is marketed by the Rheumaticide Company of New York City. It is claimed that it cures gout, lumbago, sciatica and rheumatism. Rheumaticide is for hypodermic use and is supposed to be administered by a physician. Examination in the A. M. A. Chemical Laboratory indicated that the essential constituents were uncombined iodine and iodo-phenol with traces of hydriodic acid. A preparation obtained by mixing the following was found, after standing twenty-four hours, to have properties quite similar to those of Rheumaticide: carbolic acid 2 parts, glycerin 4 parts and iodine 4 parts. And yet the exploiters call it a "serum" and inveigh against the use of drugs in this disease! (*Jour. A. M. A.*, Jan. 4, 1913, p. 66).

KOSINE.—Kosine, Kosine Company, Washington, D. C., is sold as a cure for epilepsy. According to analysis by the New Hampshire State Board of Health, it contains antipyrin 0.64 per cent., ammonium bromide 4.97 per cent., and sodium bromide 2.4 per cent., and thus has a composition similar to that of many other "epilepsy cures" (*Jour. A. M. A.*, Jan. 4, 1913, p. 66).

SOME FOODS AND DRUGS IN 1912.—That the forces devoted to the maintenance of high standards in American food and drug products are still alert and progressive is shown by the latest annual report of the Connecticut Agricultural Experiment Station. The need of a continued vigilance in the enforcement of food and drug laws is best shown by the statement that "of 757 samples taken by the commissioner under the law, 372 were found to be either adulterated, misbranded, or below standard." The general unsatisfactory character and the misleading claims which are made for so-called gluten foods is pointed out. Of the proprietary medicine family many of our old acquaintances receive a deserved exposure. There is Gouraud's Magical Beautifier, Spiro Powder, Poslam, Doctor Franck's Grains of Health coated with real silver and selling at \$33 per pound, Pink Pills for Pale People, Kargon, Schenck's Pulmonic Syrup, Thialion, Ely's Cream Balm, Cubanitos, Dr. Pierce's Golden Medical Discovery made from a veritable botanic garden, Peruna and the A. D. S. tribe, Rheumatogen, Pinex and the dignified Sanatogen. The report also shows that besides senna, Epsom salt is now added to some of the "fig" syrups (*Jour. A. M. A.*, Jan. 11, 1913, p. 132).

SUCCESSFUL BUSINESS AND PATENT MEDICINES.—In appreciation of the changing public attitude towards "patent medicines" the mail-order house of Sears, Roebuck & Co., have discontinued the sale of patent medicines. Hereafter the firm's sales will be confined to simple drugs which are used as household remedies and a few harmless and safe official preparations (*Jour. A. M. A.*, Jan. 11, 1913, p. 134 and 144.)

COMMERCIAL DIGITALIS PREPARATIONS.—An investigation of commercial digitalis preparations has been made by Weiss in the chemical-pharmaceutical laboratory of the Ministry for the Interior, to whom is entrusted the control of proprietary medicines in Austria. From an investigation of ready-made tinctures of digitalis Weiss concludes that the apothecary should prepare his own tincture. Weiss is especially severe in his condemnation of the practice of making tinctures from fluid extracts. Among the commercial preparations which were deficient are found digitalone, digalen, liquid and tablets, tabloids of the tincture of digitalis (B. W. & Co.) and hypodermic tablets of digitalis

(P. D. & Co.). Digipuratum, on the other hand, was found to have the strength claimed. Weiss concludes that at present the best form in which to prescribe digitalis is the freshly made infusion of physiologically tested leaves (*Jour. A. M. A.*, Jan. 11, 1913, p. 143).

VANADIUM PREPARATIONS REJECTED.—The Council on Pharmacy and Chemistry finds the following preparations of the Vanadium Chemical Company not eligible for inclusion with New and Nonofficial Remedies: Vanadiol, Vanadioseptol, Phospho-Vanadiol, Vanadium Solution for Intravenous and Hypodermic Use and Vanadoforme. After thorough investigation it was concluded that the company has not and never had any reliable evidence on which to base the therapeutic claims it has presented to the medical profession regarding its products. The findings of the Council were submitted to the Vanadium Chemical Company and its reply considered before publication of the report announcing the rejection was authorized. Vanadiol, according to the theory of the promoters, acts in the animal system as an oxygen-carrier. While the remarkable claims which were based on this theory are, to a large extent, capable of pharmacologic proof, no evidence to substantiate them was submitted by the company. The connection of the general manager of the Vanadium Chemical Company, "Dr." F. M. Turner, with the Turner obesity cure is noted (*Jour. A. M. A.*, Jan. 18, 1913, p. 225).

VACCINE THERAPY.—When the first clinical reports on bacterial vaccine therapy were made in the United States, an attitude of skeptical pessimism was encountered in the medical profession. To-day a "positive phase" of optimism has carried a valuable therapeutic procedure to limits little short of ridiculous. Commercial expediency on the part of establishments marketing bacterial vaccines, and ignorance on the part of physicians generally as to the limitations of this branch of biologic therapy are to blame for this condition. Because of the uncertainty underlying the identity of the offending microbe in many infections, or because of the occasional mixed or secondary infections, combinations of bacterial vaccines theoretically justified by the "shotgun prescriptions" of other days are offered. Potent bacterial products producing toxic reactions of great severity, secret as to their exact composition and vaguely aimed at a mixed infection, are in the field, recommended to the medical profession through persuasive advertising literature or through the oral representations of detail men with no technical knowledge of immunology or practical experience in therapeutics. It follows that the use of these variously compounded bacterial derivatives is an unscientific confession of ignorance as to the specific cause of a given infection, and that the indiscriminate employment of these products must not only be ineffective but fraught with danger (*Jour. A. M. A.*, Jan. 25, 1913, p. 289).

COUTANT'S FRAUDULENT DEAFNESS CURE.—George E. Coutant, M.D., conducts a fraudulent "cure for deafness" concern. The business is conducted on the mail-order plan. Victims are obtained by means of a series of "personal" letters which offer the treatment at a sliding scale of prices. Examination of the remedies sent out, shows that these consisted of practically inert tablets given for their psychic effect, laxative tablets, tablets for gargling, a cheap douche and douche tablets, a worthless ointment and an inhaler containing a mustard oil preparation. Inquiry of the writers of testimonials for the "treatment" brought the acknowledgment in nearly all cases that the treatment had proven worthless (*Jour. A. M. A.*, Jan. 25, 1913, p. 303).

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EDITOR

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COMMITTEE { A. W. McALESTER, Jr., M.D.
 { M. A. BLISS, M.D.

ORIGINAL ARTICLES

THE OPERATION FOR SENILE CATARACT *

J. ELLIS JENNINGS, M.D.
ST. LOUIS

The operation for the removal of cataract is the most important and serious in the whole range of ocular surgery. Its success or failure means much to the patient. In the one case sight is restored and the happy patient goes about his business as usual; in the other, vision is lost and the unfortunate individual becomes a helpless burden to family or state.

When one sees a skilful operator remove a cataract he is impressed with its simplicity and ease, but when he undertakes it himself he finds it is not as simple and as easy as it looks. The purpose of the present paper is to point out the methods that tend to promote successful results, and to call attention to those accidents that, to a large extent, may be avoided.

The object of cataract extraction is the immediate removal of the lens from the eye as completely as possible. It consists of five steps, namely:

1. The making of a section in the upper half of the cornea with a Graefe knife of sufficient size to allow the passage of the cataract.

2. *Iridectomy.* The excision of a small portion of the iris. This step is not essential.

3. *Capsulotomy.* Opening the anterior capsule in order to allow the lens to escape from it.

4. *Expulsion of the lens* by pressure exerted on the eyeball.

5. *Toilet of the wound*, i. e., the removal of particles of soft lens matter from the anterior chamber, freeing the lips of the wound from blood and tags of capsule and replacing the iris.

* Read at the eleventh annual meeting of the Frisco System Medical Association, Springfield, Mo., May, 1912.

POINTS TO CONSIDER BEFORE OPERATING

Before operating for cataract, the object of which is the restoration of vision, it is important to discover whether the eye is otherwise healthy or whether it is the seat of some diseased condition which would render an operation useless.

Testing the vision. Although the patient may be unable to count fingers held in front of his eyes, he should be able to distinguish light from darkness.

It is also important that he have good light projection; i. e., when the light from a mirror or candle is thrown into the eye from above, below, to the right or left, he should be able to indicate the direction in which the light is coming.

Maturity of the cataract. A cataract is ripe when the whole lens is opaque. This is ascertained by throwing a light into the eye from a little to one side. If the cataract is not mature the iris casts a shadow on the clear portion of the lens. Most operators prefer to wait until the cataract is ripe because at this time the cataract slips out easily from the capsule.

When the operation is done on immature cataracts the soft outer layers stick to the capsule and are difficult to remove. When left in the eye they interfere with vision and often set up severe iritis. Unfortunately, many senile cataracts develop very slowly, and there is often a period of four or five years between the time when useful vision is lost and the time when the cataract has reached maturity. This long period of waiting is naturally very discouraging to the patient.

Preparation of the patient. In this age of rheumatism and constipation I find it of great advantage to have the patient take 10 grains of salicylate of soda 3 times a day for a week before and a week after operation. The night before the operation he is given 2 grains of calomel, followed on the morning of the operation by a saline laxative. This evacuates the bowels completely and keeps them quiet for several days thereafter.

Asepsis. We now come to the very important question of asepsis. Infection of the wound is a complication by all means to be avoided. Let me impress upon you the fact that the success of the operation depends far less on unusual skill than it does on the cleanliness of the operator. Everything that is to be used about the eye, instruments, towels, cotton, dressings, bowls, droppers and bottles of solutions must be sterilized.

All dull instruments are to be scrubbed with soap and water, then boiled for ten minutes and finally placed in a bath of alcohol. The cataract knife and other sharp instruments are held in boiling water for a few moments and then placed in an alcohol bath for at least ten minutes. The

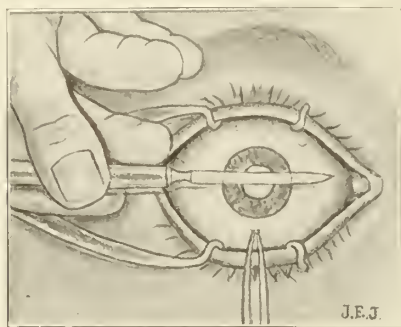


Fig. 1.—Incision.

lids and face adjacent to the eye are to be washed with soap and water and then covered with a moist 1-5,000 bichlorid pack, which is allowed to remain until ready for the operation.

The operator, assistant and nurse sterilize the hands as for any surgical operation and wear caps, gowns and gauze masks. Just before the operation the conjunctival sac is doused freely with 1-5,000 bichlorid solution and then with sterile water. As it is impossible to entirely free the conjunctival sac from microorganisms, great care should be exercised in introducing instruments into the anterior chamber, lest they come in contact with the outer surface of the globe. Instruments removed from the eye should be dipped in alcohol and then into sterile water before being reentered.

As a local anesthetic I use a 4 per cent. solution of cocain instilled four times at intervals of two minutes.

Prolapse of vitreous. Next to infection, prolapse of vitreous is the most frequent and serious accident we have to fear. It is liable to occur at any stage of the operation, from the time of the first incision to the completion of the operation and the application of a bandage. The most frequent causes of this accident are:

1. Too great pressure made by the operator with his instruments on the eyeball as a whole or on the iris or lens.

2. From the patient squeezing the lids forcibly together. This has happened many, many times, especially just after the incision has been completed, often resulting in the violent expulsion of the lens and a large amount of vitreous.

3. As a result of the patient looking down. This is probably the greatest of all causes of prolapse. The text-books teach us to have the patient look down during the expulsion of the lens, but this is a great mistake. Extraction may be a little more difficult, but it is certainly much safer to have the patient always look up and never down.

Duties of the assistant. To the assistant is assigned the important duty of preventing the patient from squeezing the lids together. This he does by making forcible traction on the brow to control the orbicularis.

The speculum I use has a light spring and is without a fixation screw, so that, in case of necessity, it can be removed in an instant. During the early stages of the operation the operator stands behind the patient, but when expelling the lens he stands in front and to the right side.

The Graefe knife should be narrow, have a sharp point and a very keen edge. When tested on a stretched piece of gold-beater's skin it should cut through of its own weight.

The incision. The key to a successful cataract extraction is a correctly placed and liberal-sized incision; one which will allow the easy delivery of a full-sized cataract. It should take in a trifle

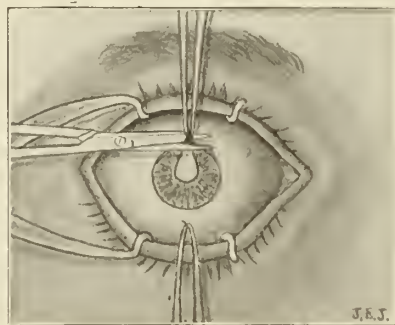


Fig. 2.—Iridectomy.

less than the upper half of the cornea. Puncture and counter-puncture should be in the sclera 0.5 mm. from the corneal edge, and the incision completed with two or three cuts of the knife coming out in corneal tissue about 2 mm. from the upper corneal margin. While the incision is being made the eyeball is steadied by means of fixation forceps applied just below the cornea.

Iridectomy. The iris forceps is cautiously introduced into the anterior chamber, the iris is seized close to the pupillary margin, drawn out and a small bit cut off with one snip of the scissors. It is possible in favorable cases to remove the cataract without doing an iridectomy. This

is called the simple operation. It has the advantage of leaving a central round pupil; on the other hand, it has certain disadvantages, i. e., the lens is more difficult to deliver, cortical masses are not so easily expelled and after the operation is completed and the eye bandaged there is frequently prolapse of the iris which requires a subsequent operation. For the above reasons most operators prefer to do a small iridectomy.

Capsulotomy. The surgeon steadies the eye with the fixation forceps and introduces the cystotome held flatwise to the lower edge of the pupil, and then turns its cutting edge toward the capsule. An x-shaped incision is made without undue pressure, lest the lens be dislocated, and the cystotome removed on the flat as it was entered. For the reason that the anterior capsule is elastic, an x-shaped incision causes the edges to eurl over, leaving a large central opening or pupil. If the incision is not extensive the capsule is apt to close and cortical remnants are thus shut off

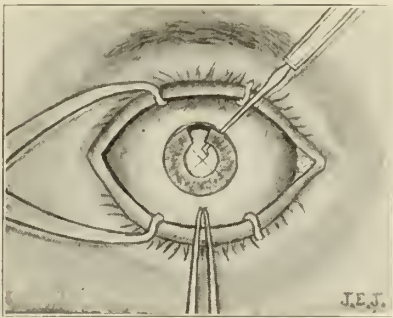


Fig. 3.—Capsulotomy.

from the aqueous and cannot be absorbed, thus requiring a secondary operation. In my later operations I have been using capsule forceps to remove a portion of the anterior capsule.

The forceps is introduced closed as far as the center of the pupil; the blades are then opened and the capsule grasped over as large an area as possible and drawn out. The advantage of this procedure is that the capsule is not only split, but also has a piece taken out of it over the pupil area, thus preventing the capsule from closing and avoiding a second operation.

Expulsion of the lens. A metal spoon is placed against the lower edge of the cornea and firm but gentle pressure is exerted backward toward the optic nerve, causing the upper edge of the lens to appear in the wound. When the greatest diameter of the lens has passed out the pressure is relaxed and the spoon is made to follow the lens and lift it out with a sweeping motion, removing at the same time any small fragments of the cortex which may lie in the lips of the wound.

Toilet of the wound. After the eye has been allowed to remain closed for a moment the upper

lid is raised gently and the operator ascertains whether the pupil is clear or clouded by cortical remnants. In ripe cataracts usually but a small amount of cortex remains behind, and this should be coaxed out by rubbing the cornea gently in a circular manner and in an upward direction with a spoon. When it collects near the wound, the lips of the incision should be separated with a spatula and the mass gently expressed.

When all cortical particles have been removed, the iris should be replaced and the pillars of the coloboma carefully smoothed out with a delicate probe. Finally, having freed the lips of the wound from blood and tags of capsule, the eyelids should be gently closed, the patient being cautioned not to squeeze the eyelids together.

Application of the dressing. An oval piece of gauze dipped in a solution of bichlorid of mercury 1-5,000, is laid on each closed lid; over this is placed pieces of sterilized cotton to a level with the brow and the dressing fastened with three narrow strips of plaster.

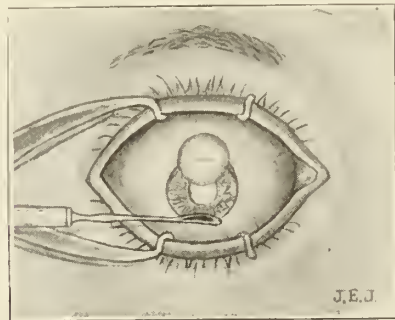


Fig. 4.—Delivery of the lens.

After-treatment. The patient is kept in bed for three days. At the end of the second day, and daily thereafter, the dressings are removed, the edges of the lids moistened with 1-5,000 bichlorid, gently separated and the wound inspected. A drop of sterile atropin solution is instilled and the eyes rebandaged. On the third day the dressings may be removed from the unoperated eye, and at the end of a week all bandages may be laid aside and the eyes protected by means of a shade or dark glasses.

Carleton Building.

THE SPALTEHOLZ METHOD OF PREPARING TRANSPARENT ANIMAL BODIES *

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In the study of anatomy it has often been found a serious drawback that the internal structures of the various organs as a whole, or the re-

* From the Research Laboratory of Washington University Dental School.

lationship of the various organs to each other, can only be partially revealed by dissection, by the use of the Roentgen rays or by making corrosions of existing cavities. In dissecting the cadaver with a scalpel, it is a common occurrence that some of the finer vessels are unintentionally cut or that, under certain conditions, it is often impossible to isolate the minute structures. The x-ray necessarily reveals only one phase of the object. The preparation of corrosions of cavities furnishes valuable aids for the study of the internal structure of the organs, but the preparation of a corrosion always means the more or less complete destruction of the original mold. In 1906 Prof. Werner Spalteholz of Leipzig conceived the idea that it might be possible to make muscle tissue, skin and the underlying fascia and even bone structure transparent by subjecting the respective materials to a process which is analogous to the preparation of tissue for microscopic examination, i. e., to decalcify the bone, dehydrate the soft structure and clarify in oil of cloves, xylol, etc., and finally immerse it in Canada balsam for permanent preservation. After many laborious experiments, Spalteholz finally succeeded in devising an excellent method by which it is possible to produce perfectly transparent specimens of tissues. Not alone may thick section of tissue be preserved permanently in this manner, but whole organs or even entire animals may be subjected to the process with equally good results.

Theory of Preparing Transparent Animal Specimens.—The preparation of transparent animal specimens embodies a combination of specific chemical and physical processes. The chemical processes are of a preparatory nature; they are necessary to render the specimen receptive to the further physical procedures. The latter involve the application of an optical law to which the specimen and the medium with which it is surrounded has to conform. This optical law may be formulated as follows: An animal or vegetable object reflects the least light and reaches the highest state of transparency when it is saturated and surrounded by a medium which possesses an index of refraction which is equal to the medium index of refraction of the object under consideration. The light rays, when striking an object, partially penetrate into its interior and partially are reflected at its surface. The proportion of reflected light reaches a minimum density and the light that penetrates into the interior a maximum density when the indices of refraction of the two substances—the object and the surrounding medium—are equal. The result of the equalization of the two indices of refraction corresponds to the maximum of transparency. A simple practical demonstration will materially assist in the ready comprehension of the above law. Glass, under ordinary condition, is transparent; it allows the light rays to pass

into its interior. If this glass is ground it presents innumerable angles on its surface which reflects the greater majority of the light rays and, as a consequence, the glass becomes opaque. If we coat the ground surface of the glass with a medium which possesses an index of refraction equal to the glass, i. e., if we fill in the innumerable angles and thereby change the broken-up surface and the underlying solid surface into a homogeneous mass, the glass at once becomes transparent again. For example, we will take an electric light globe with a partially ground surface. The light penetrates through the clear glass unhindered, while at its ground portion only a diffuse shadow of the light is visible. If we now coat the ground portion with artificial oil of wintergreen, for instance, that portion of the globe at once becomes transparent. This transparency is so perfect that at a distance of a few feet no line of demarcation between the ground and the clear portions of the globe can be observed. The removal of the oil will immediately restore the opaque surface. The same principle, in a modified degree, is involved in using an oil immersion in microscopic work.

In preparing histologic specimens it is common practice to "clear" the tissues after they have been dehydrated in graded alcohol. The fluids used for such purposes are the essential oils of cloves, bergamot, origanum, etc., or xylol, toluol, and similar substances with a comparatively high index of refraction. Thick sections of tissue or the whole organ may be subjected to this process with equal facility; in fact, there seems to be no limitation to the size of the object. However, for the permanent preservation of the specimen not all of the enumerated fluids are serviceable. Some are very inflammable, as xylol, benzol and carbon disulphide, and others, especially the essential oils, become dark with age or when exposed to light. The latter fluids may ruin the specimens by discoloration or cause opacity. The primary important properties of any fluid used for the purpose of permanently preserving a specimen are to possess an index of refraction which must be equal or nearly so to that of the specimen, and it must not discolor the latter. Professor Spalteholz, in working with the above enumerated substances and other compounds of a similar nature, reasoned that suitable fluids might possibly be found among the various synthetic compounds as used in perfumery, etc. By soliciting the aid of some prominent manufacturers of essential oils, he finally succeeded in obtaining a few synthetic compounds which apparently answered the demands made on a fluid intended for the purpose in view. It was found that the methyl ester of salicylic acid, also known as methyl salicylate or artificial oil of wintergreen, has an index of refraction: 1.534 — 1.538, benzyl benzoate, which is the benzyl ester of benzoic acid, one of: 1.568 — 1.570 and color-

less isosafrol, which represents the aromatic constituent of oil of sassafras, one of: 1.577. By mixing these compounds in suitable proportions, a fluid may be obtained which closely corresponded to the index of refraction of the object under consideration. Later on the benzyl benzoate was eliminated as it was found that, in most instances, a mixture of five parts of methyl salicylate with three parts of isosafrol was extremely serviceable as a "starter" in the preparation of the transparent specimens. Depending on the nature of the object, small quantities of either of the two compounds, usually of isosafrol, have to be added until the greatest transparency of the specimen is obtained. No fixed formula which would answer all purposes equally well can be given for this mixture. The penetration of the specimen by the final preserving fluid requires considerable time; from two to ten weeks may be necessary. During this period, the jar should be kept loosely covered to allow the xylol or benzol to evaporate. Very small quantities of isosafrol may now be added from time to time, if necessary, until complete transparency is obtained. Extreme care should be exercised in adding only very small quantities of the compound, as too much is very liable to materially affect the transparency of the specimen. The correct gauging of the respective quantities can only be acquired by experience; the beginner is especially apt to make mistakes.

To bring out the relationship of the blood and lymph vessels to the surrounding structure they may be injected with colored materials. It should be remembered that the materials used for such purposes must be insoluble in the fluids used in the preparation and final fixation of the specimen. Colored gelatin solutions answer this purpose well. In the preparation of bone specimens, the injection has to be made prior to the decalcification and the gelatin injection has to be rendered insoluble by immersion in formaldehyde solution in the same manner as the gelatinous matrix of the bone itself is hardened. The gelatin mass is prepared as follows: A sufficient quantity of the best quality of French gelatin (silver label) is placed in distilled water for twelve hours or until thoroughly saturated. It is then pressed out by hand and melted in a porcelain dish on a water bath. For coloring, carmin, cinnabar, Berlin blue, etc., may be employed as desired. The various details of preparing colored solutions for injection may be found in any good text-book on histologic technic. A gelatin cinnabar mixture, which has been used by us with satisfactory results, is composed of: gelatin solution, 25 parts; cinnabar, 5 parts. The freshly prepared mixture has to be injected while hot. A paraffin syringe with a hot water jacket or an ordinary automobile grease gun are best suited for this work. The successful injection of the

specimen depends largely on the alertness and dexterity of the operator.

Experimental Work.—My own experimental work has been solely confined to the preparation of transparent bone specimens, and primarily I have utilized the human jaw bones for this purpose. While I have described the working method in detail under "the technic, etc." a few additional items are here enumerated which may prove of some value, especially to the beginner. The thickness and the size of the bones have no bearing on the final results. I have successfully prepared various mandibles and a whole skull; green or dry bone may be used with equally satisfactory results. The bones must be thoroughly cleansed of adhering soft tissue and washed with soap, water and brush before they are subjected to the treatment. In decalcifying a jaw with the teeth in position, the enamel of the teeth is naturally totally destroyed, while the organic matrix of the teeth and bone remain intact. If it is intended to preserve the enamel of the teeth, the crowns should be carefully coated with wax or paraffin before the preparation is subjected to the acid. The paraffin or wax will readily dissolve in the xylol or benzol which is used as a clearing fluid. Of course, it is understood that such remaining enamel cannot be made transparent. The pulps do not have to be removed from the teeth; they will be made perfectly transparent by the process. The injection of bones with colored materials usually offers difficulties to the beginner. The colored gelatin solution has to be made fresh for every case and it has to be injected under pressure while hot. In the lower jaw the best place to insert the nozzle of the syringe is the mandibular foramen. The nozzle is wrapped with wet cotton to assist in making a watertight joint. As soon as the colored solution appears about the mental foramen, the opening is closed with the finger and the injection is continued. The alveoli from which the teeth have been removed are plugged with wet cotton while those in which the teeth remain should not be touched. Superfluous material pressed out may be trimmed away, when set, with a sharp knife. If, for some reason, the injection is a failure, the gelatin solution may be immediately washed out with warm water. If the gelatin has set, its removal is accompanied by great difficulties. The injection of the various canals and the antra of the upper jaw may be readily accomplished by plugging all those cavities with wet cotton which are not intended to be filled. The starting point of the injection is materially altered by the bone itself, i. e., it depends whether the maxilla is detached from the rest of the bones with which it normally articulates, or whether it is a single detached bone. If the whole skull is prepared, the canals are best injected from the cranial cavity.

TECHNIC OF PREPARING THE SPECIMENS

Fixing.—The fixing of the object may be readily accomplished by using any of the well-known fixing fluids, such as alcohol, sublimate solution, formalin, etc. We have invariably employed a weak formaldehyd solution with good result. The official formaldehyd solution contains about 37 per cent. of the gas dissolved in water. A suitable solution is made by adding 10 parts of the formaldehyd solution to 90 parts of water. The object remains in the solution from two to five days, depending on its size.

Decalcifying.—As a decalcifying fluid, diluted hydrochloric acid is preferably employed. The process is started with a 2 per cent. solution and followed by a 1 per cent. solution until complete decalcification is accomplished. The acid should be used in quantities amounting to about forty to fifty times the volume of the object, and it must be changed daily. The official hydrochloric acid contains 31.9 per cent. by weight of absolute acid. A 2 per cent. solution is prepared by adding 20 parts of the pure acid to 219 parts of water. To test the progress of decalcification, a fine steel (sewing) needle is thrust into the bone at its thickest portion; if the needle readily passes through the bone, the process is completed. Too many punctures should be avoided.

Washing.—After complete decalcification, the specimen is washed in running water for a few hours and then remains immersed in water, with frequent changes, for two or three days, or until the water reacts neutral to blue litmus paper.

Bleaching.—Occasionally it is advisable to bleach the specimen. The official hydrogen peroxid solution is satisfactorily employed for this purpose. It should be used undiluted and the specimen completely immersed in it for one to two hours. After bleaching, the specimen is again washed in running water.

Dehydrating.—The removal of water from the tissue cells is best accomplished by immersing the decalcified specimen successively in alcohol of various grades. The process is started by using a mixture of equal volumes of alcohol, 95 per cent. and distilled water. After twenty-four hours a mixture of two volumes of alcohol, 95 per cent., and one of water is used, which, after twelve hours, is replaced by pure alcohol. Finally, the alcohol is changed to absolute alcohol and the specimen remains in it for twelve to twenty-four hours. A small quantity of dehydrated copper sulphate may be added to the absolute alcohol to take up traces of water. The alcohol incidentally hardens or "fixes" the soft gelatinous specimen.

Clearing.—Of the various clearing fluids, benzol (benzene) or xylol (xylene) act equally well. Both are hydrocarbons and are very inflammable.

Benzol is the cheaper of the two. The clearing fluid has to be changed twice; the specimen remains in the first bath for twenty-four hours, or until complete penetration is accomplished. The fluid is then removed and the specimen is immersed in the second bath charged with fresh benzol or xylol for two or three days. The clearing fluid may be preserved for future use, but only for the first clearing; the second clearing always requires fresh benzol or xylol.

Permanent Clearing and Preserving Fluid.—The final solution in which the specimen is permanently preserved consists of a mixture of hydrocarbons, whose index of refraction is equal, or nearly so, to that of the specimen. Methyl salicylate and colorless isosafrol¹ are mixed in the proportion of 5 parts of the former to 3 parts of the latter. The specimen is transferred from the clearing fluid to this mixture as quickly as possible to prevent the air from entering into its cellular structure. If air bubbles have formed in the specimen, they may be removed by carefully turning the specimen about in the final solution or by exhausting the air with a suction pump. The proportions of the two fluids have to be slightly modified for each individual specimen. A very small quantity of one or the other fluid, usually the isosafrol, has to be added at times until the specimen shows the greatest transparency when viewed in direct light. It is a good plan to start with the original 5 to 3 mixture, and then add either of the fluids, according to needs, instead of employing a modified mixture in the beginning.

After the specimen is placed in the final fluid the container is covered with a layer of cheese cloth to allow the benzol or xylol to evaporate and to keep out dust, etc. In from two to ten weeks, depending on the size of the specimen, complete penetration of the preservative solution has taken place.

Preserving Jars.—Specimen jars² must be made of perfectly clear glass and have parallel sides. If possible, they should have polished fronts. Round jars will distort the light rays and consequently disturb the image. The perfect sealing of the lid to the jar has offered many difficulties as the ordinary sealing materials, which are more or less of a resinous character, will be dissolved by the preserving fluid. A concentrated solution of celluloid in acetone or in amyl acetate, in the proportion of 1 part of celluloid to 8 parts of the solvent, has given fair results. The edges of the glass must be scrupulously clean and dry before the sealing solution is applied; within a few hours it has sufficiently set to allow the jar to be handled.

1. Fritzsche Bros. of 82 Beekman Street, New York, supply these various synthetic compounds.

2. Suitable specimen jars may be obtained from Arthur H. Thomas Company, 1200 Walnut Street, Philadelphia.

To insure success, it is imperative that the various steps of the process be carefully followed in rotation, and we therefore recapitulate them briefly:

1. Fixing of the dry or green specimen in a suitable solution.
2. Decalcifying.
3. Washing in running water.
4. Bleaching.
5. Second washing.
6. Dehydrating in graded alcohol.
7. Clearing in benzol or xylol.
8. Permanent clearing in preserving fluid.
9. Evaporating the benzol or xylol and final sealing of the jar.

Professor Spalteholz has protected his invention for preparing transparent anatomical specimens by letters patent. He has very generously, however, allowed the unrestricted application of his invention for purely scientific purposes.

Twenty-Ninth and Locust Streets.

THE DANGERS OF CERTAIN OCCUPATIONS TO HEALTH *

E. P. BUDDY, M.D.
ST. LOUIS

There is a most economic movement under way in America to-day for the conservation of human resources, for the just recognition and consideration of the humanitarian aspect as well as the commercial, as one ideal employer has expressed it, "the care and improvement of animate machinery is at least as important as the care and improvement of inanimate machinery." The needless waste of young lives, the prevention of disease and unnecessary illness incurred by industrial workers are the issues at hand that demand our attention and our earnest, concerted efforts.

Accidents are only responsible for a part of the morbidity and mortality, while sickness imposes a more serious toll on industrial efficiency; and yet the former have received attention and study, while the latter have been neglected. Conditions of employment are so much more unsettled in this country as compared with European countries, with the continual shifting from one occupation to another, that the efforts of long-continued employment in trades inimical to health are less noticeable and are more difficult to study. Statistics are not available by which it would be possible to measure the morbidity and mortality occasioned by conditions of industry. The almost total lack of records on this subject makes it quite impossible to form any accurate conclu-

sions, hence the first essential for the correct calculation of industrial diseases would be the compilation of reports. For example, in phosphorus match industry the actual extent of phosphorus poisoning in the United States is unknown. Eight states (Missouri not included) require the prompt reporting of all diseases arising from conditions attendant on occupation.

The dangers of industrial occupation to health may be separated into two general classes, namely, those which cause specific diseases by a particular industry or group of industries and those dangers to general disease to which certain trades contribute their undue proportion. Specific diseases are principally among the industries using poisonous products; this includes all substances which in their production or use endanger the working capacity of the laborer. The deleterious effect is caused by gases, fluids or solids entering the body through the mouth, nose or skin, producing reactions which are more or less harmful, the degree of harmfulness or severity depending on the individual and particular poison or strength of same. Poisonous material gains admission into the digestive system through unwashed hands being brought into contact with the mouth, as in eating, chewing tobacco, smoking, picking teeth; putting nails, paint brushes, pencils, etc., in mouth; from unclean food, i. e., contaminated by being left open or poorly covered in work shops and from being inhaled and swallowed with saliva.

Poisons gain access into the respiratory system chiefly through the tonsils, breathing and inhalation. The skin is an important source of entrance for poisonous material through abrasions, lacerations, hangnails, etc., and some poisons, such as lead, quicksilver, picric and prussic acid, through unbroken skin, especially while perspiring.

The list of industrial poisons includes fifty-five substances with which I shall not burden you, simply mentioning a few important ones. The anilin colors contain many poisonous constituents. Anilin, a coal-tar product formed indirectly from benzine, is very volatile and is used extensively in textile industries, furnishing dyes and coloring matter. In cotton-print industry the danger lies in evaporation during various processes, absorption from handling goods and inhalation of dust during drying and finishing. Many young workers are employed in this trade. Its toxicity is evidenced by the symptoms of those beginning in this work, which are at times of grave import, the ill effects being increased by heat.

Lead is the most important industrial poison with which we have to deal in our vicinity. Poisoning from lead in the United States was supposed to be of minor importance as compared with foreign countries, until Dr. Hamilton¹

* Read before St. Louis Medical Society, Oct. 19, 1912.

1. Hamilton, Alice: Jour. A. M. A., April 29, 1911.

by her investigation proved the contrary. She found far more lead poisoning in Illinois than in the same trade in England and Germany combined. She says: "Far from being safer, American methods are often more dangerous than European, and while the German and English workmen are not only better protected and are under supervision of an experienced physician, the American workman is as a usual thing under no medical supervision at all.

The report of the medical investigation committee of Illinois shows that in white-lead factories employing 450 men, sixty cases, or one in 7, were poisoned, while in England five cases out of 1,320, or one in 264, are recorded.

In English² white- and red-lead factories employing ninety men, there was not one case of lead poisoning in five successive years. In an American factory with eighty-five men, the records showed thirty-five men poisoned. According to an American labor union's records, among eighty-five pottery dippers, thirteen men had sixteen attacks of lead poisoning, while in Staffordshire potteries, among 786 male dippers there were only thirteen cases of poisoning; that is, one in sixty suffered in Staffordshire, while in Ohio one in six was poisoned. Besides the regular lead and smelting works, lead is used in over forty branches of industry.

Aside from the greater dangers arising from our methods of work, the general ignorance of the hygiene of the lead trade among employers, as well as employees, is an important factor in this dangerous occupation, together with certain predisposing influences.

Owing to lack of proper legislation prescribing special precautions and medical supervision, industrial plumbism is frequent with use as it is serious. There is no legislation in the United States, except the State of Illinois, which obliges employer to remove poisonous dust and provide adequate equipment for personal cleanliness.

Preventive measures would include abolition of dust, respirators for workmen, short hours, for fatigue is one of the most important predisposing factors, ample washing and bathing facilities, with changes of clothes where necessary, thus also avoiding carrying poison home. No eating in workroom or of food that has been exposed. Chewing tobacco to many provides a false security, believing that expectoration clears mouth of lead dust, overlooking dangers of taking lead into mouth by plug which has been in lead-smeared trousers or handled with lead-smeared hands.

Phosphorus poisoning in match industry in the United States is more frequent than generally believed. Dr. John B. Andrews last year made

a detailed investigation under the direction of the Bureau of Labor, reporting eighty-two cases in three factories, and also developed the fact that 65 per cent. of the operators in all branches of the work were exposed to the dangers of poisoning. Fifteen other factories were visited, and on superficial examination sixteen cases of phosphorus poisoning were found. It was clearly evident to these investigators that there was imperfect realization of the dangers of working with phosphorus, both among employers and employees. This was proved by the statement of one manager, who said they had gone on for five years in no way suspecting that there was anything dangerous about the material they were using; their attention was first attracted by an epidemic of bone necrosis which broke out almost simultaneously. There are three kinds of matches made: safety matches which contain no phosphorus, the igniting composition being painted on the box and contains red phosphorus which, when pure, is non-toxic. The second kind of match is made in America and called the parlor or strike-anywhere match, and contains poisonous phosphorus. The third variety has the desirable quality of striking anywhere, and is at the same time practically harmless, being made from the non-poisonous sesquisulphid of phosphorus.

Nine European countries have prohibited the manufacture, sale or importation of matches containing poisonous phosphorus, and the results have been the rapid disappearing of this dread disease. Since France introduced and compelled the use and manufacture of the sesquisulphid match, there has not been one case of phosphorus poisoning in their factories.

Our last Congress passed a bill prohibiting the use of poisonous phosphorus in the match industry, which will undoubtedly eradicate this industrial danger from the United States, as it has in the leading civilized countries of the world.

That caisson disease sometimes results seriously is shown by the 100 cases with three deaths in building the Brooklyn bridge, and the number of cases that the Eads bridge claimed. This could in a great measure be avoided by proper instructions to workmen preventing sudden changes by insisting on gradual transition and enforcing time of labor consistent with amount of pressure, combined with medical examination to prevent the unfit from indulging.

General Diseases to Which Certain Industries Contribute Their Undue Proportion.—Dust is probably the most important factor in occupational dangers, producing diseases or making worse existing or latent diseases. Human health is much influenced by the air we breathe, the dusty air being laden with bacteria from the varied sources. Atmosphere polluted by organic

2. Hamilton, Alice: Jour. A. M. A., Sept. 7, 1912.

and inorganic dust is unquestionably the cause of a vast amount of ill health and premature mortality. This is especially so to those engaged in the many indispensable trades where confinement indoors necessitates breathing dust-laden air the greater part of the work day. The outdoor workers have dust also, but it is mixed with purer air and has the sunshine to destroy or disable the bacteria. That disease can be acquired by inhalation, there can be no doubt; however, of greater importance is the constant mechanical irritation to the respiratory passages by breathing dusty air, as it is destructive to the delicate membranes, weakens the resistive powers and thereby increases the liability to bacterial invasion. The term dust includes all those fine, solid particles which are thrown off from various substances in process of manufacture or treatment of articles in common use, besides ordinary and street dust carried into workrooms. Dusty trades as classified by the Bureau of Labor Bulletins are metallic, mineral, vegetable, animal and mixed dusts, which are present in over seventy-five various industries.

the street pollution into the faces of surrounding workmen and innocent pedestrians, are a constant menace to health. Tuberculosis is the most frequent, as it is the most dreaded, among the causes of premature mortality in the dusty trades. The tubercle bacilli being with or about us always, waiting a favorable chance for development, and this is amply afforded by those lungs irritated by dust and rendered weak by impurities, combined with poor and impoverished blood-defense by reason of diminished oxygen from insufficient fresh air and breathing space. The mortality from tuberculosis in the dusty trades, out of 22,987 death, was 29.4 per cent., while among outdoor occupations it was 9.5 per cent.³

Regarding the effects of St. Louis industries on mortality from tuberculosis, Miss Evans, in her report of 1910, found that one-third of the children (aged 15 to 24) who died during the year died from tuberculosis. This shows the necessity for protecting these young workers and the great importance of medical examination before allowing the children to commence work. The practical test, as recorded by Miss Evans,

WHITE MALES.—MORTALITY RATE. ST. LOUIS, MO., 1911.

Occupations	No. Deaths	—Tuberculosis—		Respiratory Diseases—		General Diseases—		—Accidents—	
		Per Cent.	Aver. Age	Per Cent.	Aver. Age	Per Cent.	Aver. Age	Per Cent.	Aver. Age
Boot and Shoe.....	76	29.	30	13.	55	39.	54	18.	45
Factory workers.....	65	26.	28	15.	49	49.	51	9.	31
Office workers.....	264	25.	32	12.5	48	55.	50	6.	32
Printers.....	35	20.	29	14.	51	54.	58	10.5	43
Brewers.....	48	18.	32	4.	42	66.	54	10.	50
Tobacco workers.....	33	12.	35	21.	56	63.	56	4.	34
Stone workers.....	41	12.	41	14.	60	58.	53	14.	51
Various miscellaneous....	848	15.	36	14.	51	57.	56	12.	40
Total indoors.....	1,410	20.	33	14.3	51	55.	54	10.4	40
Outdoor workers.....	1,543	10.5	34	14.	55	60.	56	15.	41
Professional class.....	608	3.	35	13.	72	79.	67	3.5	44
No occupation.....	110	6.	34	13.	60	59.	68	21.	48
Average.....	3,671	9.8	34	13.3	59	62.	61	12.4	43

The inhaled dust is arrested for a time in its advance to the lung tissue by the mucous secretion in the bronchial tubes, by the effort of Nature to expel this harmful substance by clearing the throat, coughing and by the expulsive action of the cilia lining these tubes. But at last the resisting forces weaken before the constant entry of dust, so that in time the noxious material passes into the finer bronchi and air vesicles, where the destructive process begins and continues. The elimination of dust seems practical with a constant renewal of fresh air from the outside. The removal of impurities, the prevention of their mixture with air breathed, respirators, cleanliness, personal hygiene, protection and medical supervision are necessities in the dusty trades. The steam vapor constantly inhaled by so many young workers, especially girls, in our laundries is another source of danger to the lungs. The street cleaners stirring up the dust on our thoroughfares, those disseminators of bacteria laden dust, the street sweepers, throwing

shows that seventy-one children applying for work certificates in three days were examined by Dr. B. Wyllie, who found eighteen suspicious cases of tuberculosis, including two positive; five others had lung crepitation without other symptoms; five gave family history of tuberculosis and were themselves of tuberculous type. In eleven others conditions were found outside of lungs. So that thirty-nine out of these seventy-one children needed medical attention, at least advice, before commencing to complete their destruction in unsuitable work.

The foregoing table represents a study of the death certificates of white males over 15 years of age for St. Louis during the year 1911. The occupations are classified, with the number of deaths in each, the percentage and average age at death from tuberculosis, other respiratory diseases, general diseases and accidents. Various indoor workers include porters, plumbers, machinists, stationary engineers, barbers, butchers,

3. Hoffman, Fred F.: Fifth Inter. Cong. of Tuberculosis.

waiters, etc. Outdoor workers include motor-men, conductors, policemen, laborers, teamsters, farmers, bricklayers, carpenters, painters, switchmen, traveling salesmen, etc. Professionals include clergymen, lawyers, doctors, editors, merchants, retired, etc.

The probable sources of error are inaccuracy in proper classification in some cases, the changing of occupation. For example, indoor workers on learning of diseased conditions find outside work, which is recorded as occupation at death. The negro males were recorded, with 365 deaths (24 per cent.) from tuberculosis. Glass-blowers were not recorded on charts, there being six reported deaths, all from tuberculosis.

The conclusions from the foregoing table are:

1. The boot-and-shoe industry has the largest percentage of deaths from tuberculosis of any St. Louis industry, while factory workers rank second and office workers third.

2. The lowest average age at death was from tuberculosis, among factory workers, at 28 years.

3. That there are 10 per cent. more deaths from tuberculosis among indoor workers than there are from all accidents, including those accidents which have no relation to occupation, as street railway, railroad, suicide, homicide, drowning, etc., and this is reversed among the outdoor workers, who show 5 per cent. more deaths from accidents.

4. That there are 10 per cent. more deaths from tuberculosis among indoor workers as compared with outdoor occupations, while there is no particular difference of percentage among other causes of death.

5. That the percentage of tubercular deaths among indoor workers is 10 per cent. greater than that of the average white males, while the percentage of other causes is less.

6. The professional class have the lowest death percentage from tuberculosis, while they have the highest among other causes, save accidents.

7. That the unemployed have the largest percentage of deaths from accidents.

Grand and Wyoming.

THE SOCIAL ASPECT OF GONORRHEA

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There is probably no other disease which has brought about so much suffering in misery, mental anguish and pain, not excepting syphilis, tuberculosis and leprosy. We need only visit the gynecological clinics and the institutions for the blind, the venereal wards in the hospital to learn how innocent mothers and children have to suffer for the sins of some one else. It has become a

great social evil, not an evanescent theory, but a great abiding fact, a lamentable reality. It is a disease not confined to the slums and hovels, but embraces all classes, high and low, rich and poor, guilty and innocent; yea, more than that, it slays the unborn, and not alone slays the unborn, but it slays the living, not through a quick, merciful death, but through a long period of mental and physical suffering, to which the tortures of the savage are merciful in comparison. The way of the transgressor is hard, the Good Book says. If this were only confined to those that have transgressed against the moral code of sexual purity, society could be indifferent towards the condition; but it engulfs in this hard way innocent women and children. Paradoxical as it seems, men who have sown much wild oats, been lax as regards sexual purity, sexual morality, will insist on and will marry only women whom they know to be chaste and virtuous. In that respect they are like thieves, who seek honest men, for they are easiest to rob. So many men will tear down a chaste woman and when she is ruined will forsake her as rats forsake a sinking ship.

Since the Civil War, gonorrhea has developed from a local to a constitutional disease. This apparent change from a local to a constitutional disease may not be absolute fact, it may only be by comparison, due to the methods of diagnosis. It first changed its character from a local to a constitutional disease in the negro race in this country not long after the Civil War. It was brought about in this manner: Before the Civil War, when practically all negro people were owned by slave holders, a zone or halo of safety was thrown about them by their owners. Promiscuous sexual intercourse was not so prevalent, was not so widespread; they were kept on a plantation and the occasion for illicit intercourse was not so frequent. After the emancipation they were, so to speak, turned loose, this zone of protection, the result of ownership, was wiped out, and the negro women fell a willing prey to the soldiers of both armies; they indulged in promiscuous illicit intercourse without restriction and began to scatter the seed of gonorrhea with a fervor due a much better cause. Since then the colored race itself, both sexes, has worked overtime in spreading this disease, in keeping it alive, so that to-day there probably are but few negroes that are not tainted with gonorrhea. Since so many are tainted and have been tainted during the present and past generations the disease has acquired a constitutional character which manifests itself in the large number of childless families, lowering of vitality and the death-rate exceeding the birth-rate, to which we will again refer as we proceed.

Gonorrhea was considered lightly until relatively recent times; the gravity of the disease did not seem to be realized until the latter part of

the nineteenth century. As late as the latter part of the eighteenth century, John Hunter, the great English surgeon and physiologist, entertained the opinion that gonorrhea and syphilis were identical; only until the latter part of the nineteenth century was the significance of gonorrhea in woman understood. All that is mentioned in history prior to that time is catarrh of the urethra and vagina. Benjamin Bell, in the nineteenth century, was the first to differentiate clinically between gonorrhea and syphilis. Neisser was the first to isolate the specific organism with the aid of the microscope, and his contemporary, Noeggarrath, through his clinical observation, brought to the attention of the profession the prevalence of the disease. It was also Noeggarrath who first made the assertion, "gonorrhea once, gonorrhea always."

Gonorrhea is an ancient disease. History would have us believe that it has been with us at least 3,000 years. Moses tells us, in Leviticus, which was about a thousand years before Christ, in these words: "And the Lord spoke unto Moses and Aaron, saying, 'Speak unto the children of Israel and say unto them, when any man has a running issue out of his flesh, because of his issue he is unclean, and this shall be his uncleanness in his issue, whether his flesh run with his issue or his flesh is stopped from his issue, it is his uncleanness.'"

The foregoing shows that it is an old disease, and has been with us a long time, but it seems to have remained a local disease in character, and bids well to remain with us quite a while, but it will have to give way to public opinion when a correct appreciation of it obtains among the laity, and to that end some progress has already been made. This Noeggarrath theory, "gonorrhea once gonorrhea always," is a subject still under discussion; it has not been determined definitely. However, the bulk of opinion seems to entertain a view that a cure can and is brought about by treatment; but on the other hand, men with extensive observation, experience and study, entertain the opinion that it is not curable. There is no doubt in my mind that some never get well; the attenuated virus seems to hibernate within the tissues and glands, which soil has become more or less immune, but the attenuated virus remaining within the system is a danger which hangs over his or her head, yea over the head of a chaste wife, and the head of the unborn babe, like the sword of Damocles. As soon as this attenuated virus is planted on virgin soil, it forthwith acquires the virulence possessed prior to hibernation. I have observed instances which this virus remains quiescent from two to six years, and how much longer it would remain in a quiescent state I am unable to say or even conjecture. In order to further illustrate and bring vivid to our minds the tenacity with which gonorrhea clings to its victim, clings

to its victim as a barnacle to the bottom of a ship, I shall read a résumé of Dr. John W. Coe of New York, who examines many applicants for life insurance. What I wish to emphasize in this connection is the large percentage of persons who showed evidence of infection. Out of 300 examined for gonorrheal infection, 264 acknowledged having been exposed previous to marriage; 58 per cent. of these 264 still showed evidence of the disease by shreds in the urine (*Am. Jour. Surg.*, February, 1911). What a large percentage, and no doubt they all considered themselves cured. It does not say how late or how recent those attacks had occurred; no doubt some dated back several years and some no doubt of recent occurrence. It shows how difficult it is to get rid of gonorrhea, and it shows also the large number of men that contract the disease. Dr. J. Byrd Clark of Yonkers, N. Y., in an address before the County Medical Society at Yonkers, N. Y.,¹ says: "It was not many years ago that gonorrhea was looked upon as a local inflammation, which ran in a majority of cases a mild course, ending in complete cure; to-day we recognize in gonorrhea a formidable infection, which has invaded every tissue of the human body and from which no class of society is immune. Gonorrhea is said to be the most widespread and universal disease affecting the adult male population."

The Influence on Society.—It is estimated by good authority that from 70 to 80 per cent. of all men contract gonorrhea, and strange as it seems, good authority estimates that from 70 to 80 per cent. of all women who are operated on for pelvic disease are victims of gonorrhea; and so many innocent women that are compelled to submit to an operation is sad indeed to contemplate, and the manner the infection is brought about. Can any one contemplate a more sad and miserable state than an innocent woman rendered invalid, rendered sterile, knowing that she can never become a mother; never will her home be gladdened by the presence of children. What is a home without children? It is like an open waste, monotonous, like a Lapland landscape, wherever you look the same monotony, snow, snow, everywhere snow; look east or west, north or south, the same monotonous snow; nothing to change the monotony, nothing cheerful. So a home without children, nothing to change the monotony, no innocent prattle and laughter of children to cheer the home, to gladden the heart. The innocent prattle and laughter of children is the nicest music ever heard, and intensified if they are your own children in contradistinction to the dreary monotony in a home without children, and this dreary lonesomeness becomes intensified as the years roll by, as age begins to assert itself, and more so with the knowledge that children of their own will not come into the home.

1. New York Med. Jour., March 3, 1906.

Families without children do not make a nation that requires fathers, mothers and children. If anyone has cause to wish back childhood, it is she who has been made barren, who has been made an invalid. She has cause to repeat the poem, "Backward turn backward, oh time in your flight; Make me a child again just for to-night." Nay! I would say not just for to-night, nor a day, but in reality, that she may start life anew again, start from the bottom up as an infant, that she may say, "Rock me to sleep, mother, rock me to sleep." That she may grow up with the requisite amount of understanding as regards sexual matters, sexual hygiene and as regards those diseases which have rendered her life miserable. That she may be enabled to guard her pure and undefiled body as it passed from its maker's hands against this subtle, insidious health- and happiness-destroying disease.

Allow me to relate a typical case: J. M. was a young man of one of the oldest and leading families of the community, was one of the boys, a splendid young man, and while sowing his wild oats contracted a gonorrhea, which was supposedly cured. He entered a profession and soon established a reputation as a leader, though he manifested a tendency to ill health, which was a puzzle to those who knew the vigorous stock from which he sprung. He married a beautiful young girl, and after a while she went to the operating-table, her ovaries were removed and her health was shattered. Then, ere he was forty, a common and relatively trivial ailment cost him his life. The microscope showed the presence of the attenuated or latent virus of the boyhood gonorrhea. In instances of this nature, it comes literally true "the wages of sin is death." The childless widow went to reside with her parents. The germs had accomplished their horrible mission after 10, so many years.

One object in relating the above occurrence is to show how gonorrhea undermines the general health, lowering the vitality, lowering the disease-resisting properties, rendering the system less capable to combat with the causes of disease. It is the cause of the majority of sterility in both male and female, thereby rendering large numbers of families childless, thereby doing the family and state an injustice by diminishing the birth-rate and increasing the death-rate, either directly or indirectly, and it will do that more as the disease acquires a constitutional character, as we see in the negro race, as referred to previously in this paper. The state of Indiana in 1908 and 1909, had a negro population of approximately 65,000, which is not a large population as a criterion. The death-rate exceeded the birth-rate by over 900 per year; at that ratio the negro population of Indiana would be extinct in seventy years. On the one hand, this is largely to be ascribed to gonorrhea lowering the disease-resisting qualities, rendering them ready victims to intercurrent dis-

eases, especially to tuberculosis; on the other hand, rendering so many sterile, both male and female, so that there is a marked decrease in the birth-rate. It is like a double-edged sword cutting both ways. In the South the white population shows a greater growth than the negro population, according to the census of 1900. Professor DuBois of Atlanta, Ga., one of the foremost negro educators of the South, established that a decrease in the birth-rate in the negro race had begun, and he concluded therefrom that numerically a natural adjustment of the races was in progress. The census of 1910 substantiates this. During the last decade the white population increased 46 per cent., while the negro population increased only 34 per cent. This condition will also obtain in the white race as the disease acquires a more constitutional character, and no doubt will occur unless an awakening occurs, which bids halt.

Why is it so widespread? Prostitution; our double standard of morality; a lack of knowledge. Paradoxical as it seems, men who will advocate and champion the cause of prostitution, or rather a lax sexual morality as a necessary evil for the sake of health and happiness, would not for one moment permit their own daughters to be sacrificed on the altar of Venus. No! always the daughters of others must be sacrificed on the altar of sexual immorality; for that is what it means, for you cannot have prostitution and illicit sexual relation without some one's daughter being made an outcast. Another reason is our double standard of morality. We exact a higher standard of morality of woman than we do of man. As regards this double standard of morality we may well say, "Oh, consistency, thou art a jewel." How it was brought about that society evolved and established this unwritten law of double standard of morality is difficult to explain, and even if we could explain it, we would not be benefited; the condition would still remain, would not alter the fact. The vital and important question would still remain how to solve this problem of double standard of sexual morality. As this double standard is one of the prime factors and one of the prime causes of venereal diseases being perpetuated, it stands to reason that this condition should and must be adjusted to a single standard applicable to both sexes alike on a plane of sexual purity and sexual morality. Man ought to suffer social ostracism for his acts in the same manner that society inflicts it on the fallen woman. This lack of retribution in the form of social ostracism to the man who deviates from the straight and narrow path of sexual purity, who strays off the reservation, who sows wild oats in the form of immorality, this lack of retribution encourages, fosters this double standard of morality. It has gotten so far that in some circles it is expected for men to be more or less lax in a moral way. Such a condition should

not obtain and will change as soon as public opinion is sufficiently aroused to demand the social ostracism of those who sin against society in that manner. Lack of understanding is another cause. The dictum has gone forth and held sway all these centuries that sexual matters must not be spoken nor written of.

The remedy is education. How shall we proceed? What are the prerequisites? It is knowledge, knowledge as to sex matters, knowledge as to social diseases and sexual purity, and a single standard of morality will be a logical sequence. How is this knowledge to be attained? By a liberal education; let the light shine on the subject from all angles, and abundance of light; however, this light is not going to break forth as at the time of creation, when God said, "Let there be light and there was light." Before this laudable object of light shining in all the fabrics of society is attained, much will have to be done and a great deal undone. To cleanse the race from this filthy disease a flood of information must be set in motion, like Hercules, who cleansed the Augean stables of the filth which had accumulated for thirty years from 3,000 oxen. How did he do it? By digging a canal from the river to the walls of the stables and opening up the walls, flooded the stables, and in a little while the filth of thirty years' accumulation was swept away. So with the filthy disease gonorrhea; a flood of authentic education and information must be begun and kept up until the disease is wiped out, or minimized below the danger point. Authentic information as the family physician can impart, in contradistinction to the information that they may glean from patent medicine almanacs, or literature from quack doctors which is intended to frighten people rather than inculcate information and understanding as regards matters sexual and sexual diseases. There is no class of people or profession who are so well fitted to spread this much-needed education as regards sex matters as the physician; no other can speak so freely of sexual matters, venereal diseases, the effect on the health, the effect on society, the dangers that lurk in these diseases, as the physician.

Ignorance obtains in sex matters, and very dense ignorance as regards venereal diseases, and especially of gonorrhea. Of syphilis a better understanding seems to prevail, at least the public is more afraid, more cautious. A great many people know that syphilis is hereditary, that it affects the health, affects the offspring; but not so as to gonorrhea, as is evidenced by the oft-repeated assertion, "I would just as soon have a dose of clap as a bad cold." This false impression, false apprehension is *prima facie* evidence of lack of knowledge respecting this disease, and that it actually is believed is shown by the reckless manner with which they go after it; and it is a fact a great many single women do not know that such a disease as gonorrhea exists.

This crusade in sexual hygiene, this crusade in educating the masses in sexual matters, in venereal diseases, and the baneful effect on the individual and on society, must be begun and must be kept up until every girl and every boy, every man and every woman, old and young, rich and poor, has an authentic knowledge as regards gonorrhea. And the physicians can only do it; they must speak plain, direct to the subject, not in ambiguous terms. We have an old precedent in speaking of sexual diseases in the Mosaic code of sexual hygiene, and sexual morality, as we find it recorded in the old testament. Lev. 15, 2, 13, "And the Lord spake unto Moses and Aaron, saying, speak unto the children of Israel and say unto them, when any man has a running issue out of his flesh because of his issue he is unclean and this shall be his uncleanness in his issue, whether his flesh run with his issue or his flesh be stopped from his issue, it is his uncleanness. Every bed whereon he lieth that hath the issue is unclean, and everything whereon he sitteth shall be unclean. And whosoever toucheth his bed shall wash his clothes and bathe himself in water," etc. Numbers 5, 2, 4, command the children of Israel "that they put out of the camp every leper, and every one that hath an issue, both male and female shall ye put out, without the camp ye shall put them, that they defile not their camps. And the children of Israel did so and put them out without the camp as the Lord spake unto Moses so did the children of Israel." Deut 23, 10, 12: "If there be among you any man that is not clean by reason of uncleanness that chanceth him by night then shall he go abroad out of the camp, he shall not come within the camp, and thou shalt have a place without the camp, whither thou shalt go abroad."

As we see in the above, very plain language was used, and to whom; not to the physicians alone, but to the people, the boy and the girl, man and woman, was to be taught this code of sexual hygiene and sexual morality so that sufficient understanding would prevail in order to guard against the spread of this filthy disease, and this mosaic code of sexual hygiene and sexual morality has served a good purpose, has brought about good results. This mosaic code has for, yea these thousands of years, kept the Jewish race more free from venereal diseases than any race under the sun. It goes to show that knowledge as regards venereal diseases is productive of good. This being true should give us courage, should prompt us to preach this gospel of sexual purity, repeated over and over again; gonorrhea must be destroyed. Do, as Cato of old, who, for thirty consecutive years, every time he arose in the Roman Forum to address the Senate, repeated the words, "Carthage must be destroyed," and Carthage was destroyed. So this campaign in sexual education must be kept up until every boy

and every girl, man and woman, has an understanding as regards this black plague, sufficient understanding so that who will can guard against the disease, so that innocent, chaste women may protect their pure and undefiled bodies against the infection of this loathsome and filthy disease, and that innocent children need not go through this beautiful world of ours, with sightless orbs; so that the slaughter of the innocents is a thing of the past, and if anyone wishes to expose him or herself, does it with a full understanding of the dangers connected therewith. As we see gonorrhea in the Old Testament times had a legal standing, those having the disease were isolated, quarantined. Why has gonorrhea no legal standing in other nations? Why do we not isolate those that have the disease? Why do we not put up the sign "Gonorrhea Here"? Why is it that this disease is so widespread, and why do we not put forth more of an effort to limit its spread?

One reason that it is so widespread is our double standard of morality, we exact a higher standard of morality of woman than we do of man, and that we do not try to limit its spread, and that gonorrhea has no legal standing, because the dictum has gone forth and held sway all these centuries that sexual matters must not be spoken or written of. That it shocks the moral sensibilities, that ignorance is synonymous with innocence. Those sentiments have been an effective bar, in the past, in educating the people. Only in recent years some few have overridden these sentiments and speaking and writing in plain language, about sexual matters. Among physicians this subject is being discussed, but it does not reach the laity. Education alone will stop this terrible injury that is being done to national health. This false prudery, this dictum, that sexual matters must not be spoken of, that boys and girls must remain ignorant as regards sexual matters, sexual hygiene, is wrong in theory, is wrong in practice. The fullest and the widest knowledge is what is needed, and sexual purity and sexual morality will be a logical sequence. They are teaching the pathology of venereal diseases in open classes of male and female students in Leland Stanford University. Social hygiene is taught in Vassar. No student has as yet withdrawn because of shocked sensibilities. It will soon be impossible for any man to deceive his wife as to venereal infections, as definite information will be placed before the women of this country. The standard of morality will soon take care of itself, will adjust itself automatically, when sufficient understanding prevails among the laity young and old, in matters sexual, and authentic knowledge obtained from some authentic source. When that time comes, one that is infected with gonorrhea will be considered a menace to society. The legalizing of gonorrhea will go a great ways in limiting the spread of this dread disease.

STERILIZATION OF MILK

J. L. MORSE, Boston (*Journal A. M. A.*, March 22), says that the term "sterilization" should never be applied to the processes used in the preparation of infant's food, as they do not render the milk bacteriologically sterile. He describes the changes produced in milk by heat, in appearance, taste, smell and composition. Changes in taste and smell are not usually produced at less than the boiling-point, but heating to 150 F. or over materially prevents the rising of cream. In boiling there is a precipitation of the calcium and magnesium salts, the organic phosphorus is decreased and the inorganic increased, and about one-third of the citric acid is precipitated in the form of tricalcium citrate. About 90 per cent. of the carbon dioxide and 50 per cent. of the oxygen and nitrogen are also driven off and there is a certain amount of decomposition of the compounds of casein and its base. The soluble albumins are precipitated. These are the findings of Rosenau, Pfaundler, Schlossmann and Sommerfeld. Heating milk to 149 F. for thirty minutes does not cause noteworthy changes in the composition, and the precipitate reaction is not diminished by even an hour at 248 F. It has been shown that the typhoid, diphtheria, dysentery and cholera germs, as well as other pathogenic organisms, are destroyed by heating to 140 F. for twenty minutes. The spore-bearing organisms are more resistant and the toxic products of bacterial growth are sometimes rendered inert and sometimes not. That of the colon bacillus is unaffected at 272 F. The lower animals do better when fed on raw than cooked milk of their own species and babies react similarly. There is, however, little relative evidence as to the ill effects of cooked milk as a food, either in the production of rickets or scurvy, though the evidence seems a little stronger as to the latter. Other factors must be excluded, however, and more extensive observations are required. The assertion that cooking milk "devitalizes" it is not altogether credited by Morse, who considers it at least not proved, and he advises cooking milk as a routine practice for the destruction of injurious germs, even if it does affect the digestibility. Pasteurization, using 145 F. instead of 140 as the standard, for twenty minutes does not do away with the necessity of taking care of the milk and keeping it cold. The flash method of pasteurization is condemned. The method advised for home use is pasteurization in sterilized bottles placed in a dish of water on the heater and kept there till the thermometer in the water reaches 145, then taken out and wrapped in a blanket and allowed to stand for thirty minutes, then taken out and cooled quickly, preferably in running water, and kept in a cold place till used.

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EDITORIALS

OPTOMETRY BILL DEFEATED—OTHER MEDICAL LEGISLATION

After a strenuous campaign by the Committee on Public Policy and Legislation, aided by the component societies, against the passage of the Optometry bill and House bill 650, the Optometry bill was finally defeated. The combined forces antagonistic to existing medical laws fought desperately for the passage of the Optometry bill and conditions were more favorable to their cause this year than at any previous session; therefore, the struggle to defeat the measure was a continual battle from the day the General Assembly convened. We won, but only after the unanimous action of the county societies, by resolution and the numerous letters and protests from individual members, convinced the law-makers that such a statute was unnecessary and was not protective of the public health.

House bill 650 was reported unfavorably by the committee after a public hearing. This bill was inspired by the chiropractors who are making as determined efforts to escape the restrictions of the medical law as are the optometrists. It was vigorously pushed by the creeds clamoring for so-called "medical freedom," the mind curists, etc.

Another bill was introduced as House Bill 854, which sought to legalize the practice of "suggestive therapeutics." This bill was quite as vicious as 650. It was promoted and advocated by the Weltmer Institute of Nevada, Mo., who wanted their "graduates" to have permission to practice medicine, with no other preparation than a six months' course of study (?) at that place. This bill was introduced after the numerous protests had been sent against 650 and its similarity to that measure was its own condemnation, even the author of the bill expressing himself as against its passage. A public hearing was demanded by its advocates, which was granted, and one of the Weltmers undertook to explain the beauty, harmlessness and wonderfully effective remedial influence of suggestion, particularly when applied after six months' instruction (from hand-prepared manuscript) at the Weltmer Institute. Mr. Weltmer described the potency of mind cure in diseases ranging from constipation

to insanity, as practiced at his institution and by absent treatment sent through the mail.

The Association was represented by Drs. Funkhouser, Lutz, McComas, McAlester, Jr., Behrens, Allee, Goodwin and the physician members of the House of Representatives, Drs. Martin, Teel, Eaton and Tyler, at the hearings on 650 and 854. Drs. Lutz and Funkhouser were the only ones to address the committee. In short talks they impressed on the legislators the important fact that no person should be permitted to practice medicine in any of its departments without qualifying according to law by attending a medical college for four years, obtain his diploma and then secure his license after examination by the State Board of Health.

At this writing the bill has not been reported out by the committee, and it will in all probability slumber peacefully in one of the pigeon-holes.

The Committee on Public Policy and Legislation desires to thank the members of the Association for the prompt and effective work done to petition representatives and senators against the passage of these bills. It would not have been possible to defeat the Optometry bill without this general aid, for some of the members of the General Assembly not only favored the bill, but worked for its passage. We should feel gratified and encouraged with the result of our efforts at this session of the legislature and with the spirit of fidelity and devotion to the principles of our organization which the large majority of the members exhibited in this contest.

It is proper at this time to acknowledge our indebtedness to members of the legislature who were instrumental in arresting these attacks on our medical law. The Speaker of the House, Mr. Hull, the Democratic floor leader, Mr. Orr, the chairman of the committee which reported the Optometry bill unfavorably, Mr. Joshua Barbee, Col. Wm. H. Phelps of Jasper County, Mr. George Lloyd of St. Louis, were among the prominent members who opposed these reactionary medical bills. Dr. Allee, the senator from the 27th district, whose nomination and election the "antis" fought most bitterly, was a bulwark of strength at all times and he was assisted by the other physician senators, Drs. Welch and Feaster. In the house the physician members worked together harmoniously and effectively to inform the other member of the dangers of tampering with the medical laws. These physicians are: Drs. J. H. Martin, A. W. Teel, S. S. Cox and John A. Eaton.

MAINTAIN THE STANDARD

We reproduce here an editorial from the *Journal of the Tennessee State Medical Association*, and commend it to the thoughtful consideration of our members. As in Tennessee, we also have felt the effect of ill-considered activities of some

of our members in matters touching the welfare of the profession generally. We hope the words of the editor of the *Tennessee Journal* will give pause to such disorganizing influences in the future. The editorial follows:

WHAT'S THE USE?

What's the use? It appears that the Tennessee State Medical Association might as well abandon all effort to place and keep the medical conditions of our state on a decent basis. For many years one of its important standing committees has been the Committee on Public Policy and Legislation, charged with the duty of promoting needed legislation and opposing that of an undesirable or vicious character. In the past the committee has been able to accomplish much both for the benefit of the public and for the honor of the profession. But the times seem radically changed. The General Assembly now in session has been deluged with measures of every conceivable kind intended to lower professional standards and render the public still more easy prey for the multiplying cults, each of which loudly proclaims itself the sole possessor of knowledge and truth. And for the first time these delectable brethren have been able to back their appeals for recognition by petitions signed by fellows of this Association. Result: The legislative committee's influence and opposition was discounted in advance.

To be more specific: Two measures providing for full recognition for "Chiropractics" and "Mechano-therapists" have been introduced in both the senate and house, and both have been acted on favorably by the reference committees. In fact, the former has been passed with a saving amendment restricting its application to the county (Knox) whose representative introduced and championed it. The self-respecting members of the Association can imagine how pleasant it was, when this measure was being discussed, for our committee to hear this gentleman vociferously declare that these "doctors" were marvelous healers of the sick; that they had numbered among their patrons in the recent past three members of the supreme court, all of whom were restored to perfect health after the regular physicians had failed; that he himself was a living proof of their great skill; that sixteen or seventeen of the leading physicians of Knoxville (whose names he called) not only endorsed them and their methods, but referred cases to them constantly, etc. If these statements were true—and the editor does not doubt it, for he has personally seen a petition unqualifiedly endorsing a kindred cult signed by ten or more of the well-known members of the Knoxville profession—the passage of the bill restricting it to Knox County is a matter for congratulation. If the Knoxville profession wants and needs such confrères, for pity's sake let them have them.

But what about the remainder of the state? Would it not have been more seemly for the bill to have been drawn originally to apply to Knox County only, and not attempt to foist these wonderful healers on the profession and public of the whole state? Or shall we assume that humanitarian considerations prompted the desire of our Knoxville brethren to share their precious possession with their friends and fellow citizens? Let us view the matter charitably, if we can find even an improbable reason on which to base a charitable view.

We shall not stultify the intelligence of our readers by entering into a discussion of the merits—or rather demerits—of these measures. The only plea made or that can be made for them—namely, that they do not seek to confer the right to practice medicine—is obviously false and misleading. The treatment of disease, not the administration of drugs, constitutes

the practice of medicine, and this fact is known of all men, physician, jurist and layman alike. Only the woefully ignorant or the willfully blind can be deceived by this specious argument. But we cannot refrain from protesting with all the vehemence of our outraged professional pride against members of this Association lending their names to the furtherance of schemes at once derogatory to the time-honored principles of our calling and subversive of the best interests of our fellowmen. Truly, these are strange days into which we have come—and perilous, not to say disastrous!

It is high time that we call a halt and take stock. Ordinarily the pessimistic note finds no echo in these columns. But the present crisis is one that calls for action. If as an Association and as a profession we mean to abandon the ideals and purposes for which we have so long contended, in God's name let us do it openly and speedily.

What's the use? And again, what's the use?

A SIGN OF BETTER THINGS

St. Louis has often been referred to as the hot-bed of the proprietary nostrum business—the nidus from which the shot-gun proprietary plague has spread and infected the whole country. While it is not pleasant for a Missouri publication to acknowledge the charge, its justification will be conceded if it be remembered that St. Louis is the home of such firms as Battle & Co., Dios Chemical Co., Lambert Pharmacal Co., Mellier Drug Co. and Walker Pharmacal Co. Its justice is further emphasized if it be borne in mind that these concerns prepare Bromidia, Celerina, Dioviburnia, Echthol, Germilitum, Hymosa, Listerine, Papine, Phytoline, Tongaline—unscientific mixtures which are an insult to the intelligence of the physician—and that most of these have given rise to a host of imitations—the elegant specialties of our large pharmaceutical houses—some of which have even been admitted to the Pharmacopeia and National Formulary. In consideration of these facts, it is but natural that the reports of the Council on Pharmacy and Chemistry and its chemical laboratory, as well as the prosecutions under the federal pure food and drug law, have frequently placed our state in the lime-light of undesirable publicity.

These conditions have made this JOURNAL feel it a duty to call particular attention to the fakes and worthless proprietaries which hail from this state. Now it is our pleasant duty to report that there are signs of better things in Missouri. We refer to the acceptance by the Council on Pharmacy and Chemistry for inclusion with its New and Nonofficial Remedies of two of the products of the Monsanto Chemical Company of St. Louis, namely, calcium glycerophosphate (THE JOURNAL, February, 1913, p. 289), and sodium glycerophosphate, described in the Truth About Medicine Department of this issue.

Inasmuch as the therapeutic value of the glycerophosphates has of late been questioned seriously, it should be explained that the Monsanto Chemical Company makes no therapeutic propaganda for its products. Its only concern is to supply the chemical substances prescribed by physicians in a high state of purity. That there is need for a supply of pure glycerophosphates was emphasized recently by a report of the Council on Pharmacy and Chemistry (*THE JOURNAL*, August, 1912, p. 68), which stated that not a single brand on the American market was at that time found satisfactory. The poor quality of glycerophosphates will be appreciated when it is stated that in the past sodium glycerophosphate has been so impure that it was sold only in a solution containing 50 to 75 per cent. of the salt. That the Monsanto Chemical Company thinks it worth while to supply drugs of high quality is a good sign.

COMMITTEES ON RED CROSS MEDICAL WORK

The National Red Cross has asked component societies of the State Association to appoint local committees on Red Cross medical work for the purpose of establishing an effective medical force throughout the country, which can be called on for immediate assistance in times of disaster requiring Red Cross aid. The St. Louis Medical Society has appointed such a committee and doubtless other societies have taken similar action. One of the duties of this committee will be the examination of Boy Scouts.

CONTRACT PRACTICE

What can be done to eradicate practices that do not comport with the dignity of the profession and are, in addition, detrimental to the welfare and interests of the public as well as of the physician, was shown some months ago when the Greene County Medical Society prohibited its members from engaging in contract practice where services were rendered for nominal fees or no fee at all.

Recently the St. Joseph-Buchanan-Andrew County Medical Society entered on a serious campaign to eradicate contract practice from among its members and several meetings were devoted to a discussion of the subject in its various phases. The result thus far has been that several members doing cheap lodge contract practice declared that they would discontinue the work. The discussion took a wide range and at this writing final conclusions had not been arrived at. A full report of the discussion will be found in the society proceedings in this issue.

INTERNATIONAL CONGRESS OF MEDICINE

The International Congress of Medicine convenes in London, Aug. 6-12, 1913. Indications point to this session being one of the largest international gatherings of medical men for many years. Preparations are under way for entertaining five thousand physicians at this meeting. The Congress will be divided into twenty-six sections and subsections, most of which will hold daily meetings. The Congress of 1881 was presided over by Sir James Paget, and was notable for the presence of Huxley, who delivered an address on heredity, and of Pasteur.

The 1913 Congress will be presided over by Sir Thomas Barlow, President of the Royal College of Physicians. Professor Chauffard of Paris will deliver the address on medicine; Prof. Paul Ehrlich of Frankfurt on pathology; Mr. John Burns, M.P., on public health; Prof. Harvey Cushing of Harvard University on surgery; Mr. W. Bateson, F.R.S., on heredity.

Excellent arrangements can be made for attending the congress and extending the trip to include a tour of Europe at a moderate cost.

NEWS NOTES

DR. GEORGE F. BUTLER, Chicago, has accepted the position of medical director of Mudlavia. He will be in charge of the medical work of that health resort in future.

DR. SAMUEL ROBINSON of Clifton Springs, N. Y., was the guest of the St. Louis Surgical Society March 12. He delivered an address on "Intratracheal Insufflation and Anesthesia," with demonstration.

THE bill to create the office of state alienist to deliver lectures on the care and treatment of the insane to the superintendents and assistant physicians at the state hospitals, failed to pass in the House of Representatives.

TWENTY-FIVE violations of the pure food laws were proved recently by United States agencies against milk dealers in Illinois, for shipping adulterated milk into St. Louis. In almost every instance the milk dealers pleaded guilty.

THE CHARITON COUNTY MEDICAL SOCIETY has adopted resolutions requesting the state association to increase the state dues. The delegate for Chariton County has been instructed to advocate this change at the meeting of the Association next May.

THE SURGEONS CLUB, St. Louis, has elected the following officers: president, Francis Reder; secretary-treasurer, Wm. S. Deutsch; councilors, N. B. Carson, Fred T. Murphy, John Young Brown, W. A. McCandless, Geo. W. Cale, Phil Hoffmann. The club meets on the third Wednesday of every month.

MEMBERS desiring to submit papers in the surgical section at the annual meeting in St. Louis, will kindly submit the title and a brief digest of the paper to the secretary of the surgical section as soon as possible in order that the program may be arranged. Address, Dr. H. P. Kuhn, secretary, 1025 Rialto Building, Kansas City, Mo.

GOVERNOR MAJOR has reappointed Dr. S. L. Baysinger, Rolla, a member of the board of curators of the state university for the term of six years. This is the second term Dr. Baysinger will serve on the board. Dr. V. Q. Bonham, Fayette, has been appointed a member of the board of managers of the Fulton State Hospital.

DR. C. R. WOODSON, St. Joseph, was honored by the house of representatives on the occasion of a visit by the doctor when the house was in session. Mr. Bretz, from Buchanan County, moved that Dr. Woodson be invited to address the house, which carried unanimously. Dr. Woodson spoke for a few minutes in a vein which bespoke his appreciation of the honor and to encourage the law makers to have ever in mind the interests of the public in their deliberations and actions on proposed legislation.

THE editor of the Iron County *Register*, one of the best weekly newspapers published in the state, possesses keen perception of the kind of philanthropy actuating persons who urge the adoption of an optometry law in this state. We quote from the March 6 issue of the *Register*:

"And now the legislature is asked to enact a law which shall prohibit from selling spectacles all who are not certified optometrists. Bring me a man, dear reader, who believes that such a law is urged out of regard for your eyes and mine, and I will match him against the green of April's grasses."

THE house of representatives passed a bill appropriating \$50,000 for the manufacture and free distribution of hog-cholera serum which is, of course, a great victory for the hogs. The passage of the bill inspired Dr. J. H. Martin, the member from Iron County, to introduce the following resolution.

"Resolved, That it is the sense of this House that bills appropriating money for hog cholera be given preference in consideration to bills providing for free

serum for the treatment of diphtheria in our children; that as we seem to consider the hog's life of more importance than our children's lives and as we must credit the medical profession with the discovery of hog-cholera serum as well as diphtheria antitoxin, we hereby give the poor doctors a little praise."

The resolution was referred to the committee on agriculture.

W. B. SAUNDERS COMPANY of Philadelphia and London, announce the early publication of a volume on the History of Medicine by Dr. Fielding H. Garrison, principal assistant librarian, surgeon-general's office, and editor of the *Index Medicus*. Dr. Garrison's twenty years' experience in medical bibliography, and the unusual advantages derived from his close touch with the rich stores of the surgeon-general's office, fit him most admirably for such a work as this. Dr. Garrison's work will undoubtedly be a valuable book to every medical man. In this one volume he will get a complete history of medicine from its earliest times, presented in a concise form.

THE following articles have been accepted for inclusion with New and Nonofficial Remedies: Vacules Digital (H. K. Mulford Co.).

Sodium Glycerophosphate (Monsanto Chemical Co.).

Staphylococcus Pyogenes Aureus Vaccine (G. H. Sherman).

Staphylococcus Pyogenes Albus and Aureus Vaccine (G. H. Sherman).

Pneumococcus Vaccine (G. H. Sherman).

Meningococcus Vaccine (G. H. Sherman).

Isatophan (Schering & Glatz).

Isatophan Tablets (Schering & Glatz).

Hediosit (Farbwerke Hoechst Co.).

A MOVEMENT is well under way looking toward the arrangements of a series of tours for the benefit and convenience of the physicians and their friends who contemplate attending the International Medical Congress to be held in London, August 6 to 12.

There will be a tour for those who wish to avail themselves of high-class steamships and hotels, and another for those using less pretentious hotels and steamships, and one tour for a trip direct to London and return.

This plan will enable those physicians who attend the congress to visit some of the best known clinics of Europe under a competent guide.

"The Luckey Tour" company of 725 Olive Street, St. Louis, Mo., under the personal supervision of Mr. E. D. Luckey of the Hamilton Hotel, St. Louis, is directing this movement.

Further information may be obtained by addressing either Mr. Luckey at the hotel or "The Luckey Tours," 725 Olive Street.

OBITUARIES

GEORGE HARPER DONALDSON, M.D.

The late George Harper Donaldson was born in Monroe County, Missouri, March 16, 1846. His death occurred, after a brief illness, Jan. 23, 1913, at his late residence, 3932 Baltimore Avenue, Kansas City. Dr. Donaldson received his medical education at the Missouri Medical College of St. Louis, from which he graduated in the spring of 1875, and for the following ten years practiced his profession at Breckenridge, Mo. He then moved to Kansas City, where he continued to practice until the time of his death. For the last nineteen years his office and residence have been in Westport, and associated with him were his two sons, Dr. Clyde O. Donaldson and Dr. J. Earl Donaldson. Dr. Donaldson was identified with the Confederacy during the late war, serving as scout at the age of 18. He was twice captured, confined in the Andersonville (Ill.) prison and sentenced to be shot, but fortunately escaped. On Aug. 24, 1871, at Barnesville, Mo., Dr. Donaldson was married to Miss Jennie B. Green, who survives him together with their three sons, Dr. Clyde O. Donaldson, Dr. J. Earl Donaldson and Glenn R. Donaldson, an attorney, all of Kansas City. Dr. Donaldson was a Knight Templar and an active member of Westport Lodge, A. F. and A. M., which took charge of the remains and conferred the last rites of the order at the grave. Members of this society, who were copractitioners in his immediate neighborhood, acted as pallbearers. Dr. Donaldson enjoyed an extensive practice, with which he was actively engaged until a short time before his death, which occurred quite suddenly as a result of acute cardiac dilatation. He enjoyed the confidence and respect of the community in which he lived, and was much admired for his firmness of opinion when once established. Although not an active worker in the county society, he held it in high regard, and it was one of his greatest enjoyments to be present at its meetings. To his family the society desires to express its profound sympathy, in this our mutual bereavement.

"But perhaps it still is better that this busy life is done:

He has seen old views and patients disappearing one by one;

He has learned that Death is master both of Science and of Art;

He has done his duty fairly, and has acted out his part."

—B. H. W.

DOKE GENTLE, M.D.

The following resolutions were adopted by the Howard County Medical Society:

WHEREAS: The All-wise Architect in His wisdom and goodness has taken from us an honored member of our profession, Dr. Doke Gentle of New Franklin, who was a member of Howard

County, the Missouri State Medical and the American Medical associations. Dr. Gentle was born in 1886, and died Jan. 6, 1913, and had endeared himself to all his friends and associates.

Resolved, That we, the members of Howard County Medical Association, bow submissively to the divine will. We feel, that in the death of Dr. Gentle, we have lost an honored member.

Resolved, That we tender our sincere sympathy to his devoted mother and wife.

Resolved, That the secretary be instructed to furnish a copy of these resolutions to the family, to the Missouri State Medical Association, and to the county papers for publication, and that a copy be inscribed in the records of Howard County Medical Association.

V. Q. BONHAM,

J. B. FLEET,

C. W. WATTS,

Committee.

JAMES HANKS, M.D.

The following resolutions were adopted by the Adair County Medical Society:

WHEREAS, The Adair County Medical Society has lost one of its charter members in the death of Dr. James Hanks of Brashear; a man in whom we have recognized a gentleman and a Christian of the highest type; a physician of unusual ability and attainments, and a student and investigator whose chief aim and effort was to serve and benefit humanity; therefore, be it

Resolved, That we recognize his death as an irretrievable loss to this Society. He enjoyed the respect, confidence and friendship of all physicians who knew him. No general practitioner in this portion of the state was held in higher regard. His death is a distinct loss; a loss to this Society whose councils were enriched by his research; a loss to the community which he served for twenty years in general practice and by his zeal for education and social betterment; and a loss to the church of which he was a devoted member and earnest worker.

Resolved, That we extend our personal sympathies to the bereaved family in the irreparable loss they have sustained.

Resolved, That as members of this Society we will ever bear his sterling qualities of character, as a man and a physician, in mind and strive to emulate the example he has left us.

Resolved, That these resolutions be spread on our minutes, that a copy be furnished the family of the deceased, also a copy be sent to THE JOURNAL of the Missouri State Medical Association and Brashear News for publication.

E. C. CALLISON, M.D.,

J. W. MARTIN, M.D.,

J. S. GASHWILER, M. D.

The Committee.

MISCELLANY

CONDEMNS FEE-SPLITTING

The following resolutions were adopted by the Western Surgical Association:

"*Resolved*, That it is the intention of this Association not to countenance the practice of

fee splitting in its members nor in its applicants for membership, and that we incorporate in the application blank for membership in this Association a clause to be signed by the applicant stating that he does not now practice and will abstain in the future from the practice of fee splitting in any form and that he will not countenance it in others."

It is further suggested that this Association would be pleased to receive the resignation of any member, if such there be, who feels that he is not willing to live up to this provision.

"Resolved, That the Western Surgical Association ask the cooperation of the various American Surgical Associations, the State and Interstate Medical Associations and the Regents of the State Universities to cooperate with this Association in the suppression of both the secret and open fee-splitting evil in its various forms."

BILL PROHIBITING FEE-SPLITTING PASSED BY HOUSE OF REPRESENTATIVES

The Woodward bill prohibiting the division of fees by physicians and surgeons passed the House of Representatives and goes to the Senate. The bill fixes a fine not to exceed \$500 for each offense; violation is also punishable by revocation of license.

DOWN WITH SURGICAL FEE-SPLITTING

THE St. Louis Medical Society earns the thanks of long-suffering laity and humanity in general by taking a pronounced stand against the "fee-splitting" system.

No crueler graft is conceivable than that by which the ordinary physician divides the fee with the surgeon to whom he has "turned over business," or referred a surgical case. This practice, declare reputable doctors, flourishes among some city surgeons who have patients sent to them by country physicians. One hospital in the state, it is said, allows 30 per cent. of the surgical fees to the doctors with whom cases originate.

In passing it may be noted that "split fee" is a misnomer. The patient in reality pays double to a class of men who charge all that the traffic will bear.

How many needless operations must have been performed, how much useless cutting done, how many lives jeopardized without justification, how many actual murders occasioned, by a system that tempts dishonesty and premiumizes butchery! As a question of medical ethics, none more important has presented itself to the profession or the public in a long time. But the safety of the public should not be left to depend solely on the ethical sense of the better class of practitioners or the resolutions of medical societies. The subject is one for the state legislature, and

should be treated in the criminal statutes. We recommend that the St. Louis Medical Society address the general assembly next month to the end of obtaining a drastic and permanent reform. —St. Louis *Post-Dispatch*.

TWELFTH INTERNATIONAL CONGRESS OF OPHTHALMOLOGY

To the Editor:—Enclosed find a copy of the first announcement for the Twelfth International Congress of Ophthalmology, to be held in St. Petersburg, July 28 to Aug. 2 and Aug. 10 to 15, 1914. The small package of announcements which I have received as corresponding member, does not permit sending out more than a few notices in each of the larger cities of this section of the country. Therefore, if you can give space to a general announcement in the *STATE JOURNAL*, it will serve the purpose of notifying all the ophthalmologists in the state at once.

Yours very truly,

W. H. LUEDDE.

The announcement follows:

In order to execute the preparation of the Congress which stands under the protection of His Majesty the Emperor, a centralbureau was founded in St. Petersburg.

The members of this bureau are: the professors of ophthalmology from our universities, representatives of ophthalmological societies, as well as oculists from several important towns of the Empire.

The centralbureau took care to invite renowned oculists from all civilized states as corresponding members. All those members form the international organization committee.

According to a sympathetic custom and in recognition of our deferential homage to the committee of the preceding Congress in Naples, we have conferred the presidency of honor to the eminent colleague Professor Arnaldo Angelucci (Naples).

In the regulation of the twelfth Congress, joined here, one has taken into consideration the precepts adopted at the tenth and eleventh Congresses.

Until now the official languages on Congresses have been: English, French, German. In Naples one had to accept also Italian and Spanish as official languages. This time, we unite with them the Russian language.

Making such a concession we request the authors who want to make communication, to express the principle ideas, thesis and conclusions of their work in French; otherwise it is impossible to discuss, which is the principal aim of the Congress.

We request you to have the amiability to transmit in time your participation in the Congress, directly or through intervention of corresponding members from your country. We hope that you will take an active share in the works of the meeting in St. Petersburg.

All informations and circulars which the organization of the Congress gradually requires will be sent to you by one of the representatives of your country.

PROF. L. G. BELLARMINOF,

President of the Centralbureau and of the International Organization Committee.

Dr. W. H. Luedde, Metropolitan Building, St. Louis, is the corresponding member for this section. Inquiries for detailed information may be addressed to him.

SOCIETY PROCEEDINGS

MEDICAL SOCIETY OF CITY HOSPITAL ALUMNI

The Medical Society of City Hospital Alumni (St. Louis) held its regular meeting on Thursday, March 6, at the City Hospital.

The program consisted of the following papers: "Hematoma of Vulva and Vagina, with Report of a Case," by Dr. Scott Heuer. "Local Anesthesia in Minor Gynecology," by Dr. S. J. Wolfermann. "Spinal Anesthesia in Gynecology," by Dr. George Gellhorn.

ST. LOUIS MEDICAL SOCIETY

For Medical St. Louis

The program committee is endeavoring to prepare programs that will appeal to the greatest number of our local medical profession. There are those of our members who have gotten out of the habit of regularly attending the Saturday-night meetings and can often only be enticed out by what appears to be an unusual attraction. We might easily supply out-of-town speakers for half or more of our meetings, and they would all bring us things well worth hearing. But, in order to see if we see ourselves in the proper light, unprejudiced your mind, if need there be, "gentle reader," scan the names of our own members which are appearing on our programs and then decide if at least some of the home-talent evenings are not missed with a very great loss.

Many of the members have for long realized that no meeting of the St. Louis Medical Society could be missed without loss; there are many more who are gradually but surely learning this; and there are many more yet who need be apprised of that fact. Now and again standing room is at a premium, but usually there are a few seats for even those who unfortunately have to come in late.

The making of a real live medical society, of proper proportions for St. Louis, is one of the first steps toward that better medical St. Louis for which we are all working. Visiting physicians cordially invited.

Program

Saturday, March 22, 1913.—"The Technic of the Sphygmogram with Remarks on the Use of Instruments of Precision in the Study of Cardiovascular Disease," Dr. George Richter; "The Determination of Diastolic Blood-Pressure in Aortic Regurgitation," Drs. Albert E. Taussig and Jerome E. Cook; "The Relation of Arteriosclerosis to Certain Ocular Conditions," Dr. Elsworth Smith. Discussion to be opened by Dr. Nathaniel M. Semple. "A Microscopical Study of the Conjunctival Vessels"; Report of a Series of 700 Examinations," Dr. Wm. H. Luedde.

Saturday, March 29, 1913.—Program for this meeting supplied by out of town members of the Central States Orthopedic Club. "Fractures of the Tibia and Fibula Involving the Ankle-Joint," Dr. Alexander R. Colvin, St. Paul, Minn.; "Some Interesting Lumbosacral and Sacro-Iliac Cases," Dr. Edward S. Hatch, New Orleans, La.; "Possible Causes of Back and Leg Pain as Revealed by X-ray Illustrated by Lantern Slides," Dr. Frederick C. Kidner, Detroit, Mich.

Saturday, April 5, 1913.—"The Medical Library Situation in St. Louis; Diagnosis and Treatment," Dr. George Dock. Discussion to be opened by Drs. F. J. Lutz, Jos. Grindon, E. L. Opie and M. G. Seelig.

Saturday, April 12, 1913.—"The Present Condition of the Jails and Alms Houses in Missouri, with Lantern Slide Demonstration (by invitation)," Miss Charlotte B. Forrester; "The Present Situation in the State Hospital Service in Missouri," Dr. Malcolm A. Bliss.

Saturday, April 19, 1913.—"A Microscopical Study of the Conjunctival Vessels; Report on a Series of 700 Examinations," Dr. Wm. H. Luedde; "Early Anatomical Illustrations and Lost Anatomical Plates," Dr. James Moores Ball.

Saturday, April 26, 1913.—Program to be supplied by members of the Section on Obstetrics and Diseases of Women.

Saturday, May 3, 1913.—"The Circulation of the Kidney and Its Relation to Certain Kidney Diseases," Dr. C. E. Burford; "The Phthalein Test for Renal Function with Relation to Operative Procedures," Drs. J. R. Caulk and T. M. Davis; "Stereopticon Views of Pathological Conditions of the Kidney and Ureter, with Methods of Examination," Dr. Bransford Lewis.

Saturday, May 10, 1913.—"A Symposium on Laboratory Aids in Medical and Surgical Diagnosis."

Saturday, May 17, 1913.—"Polyadenoma Gastrica," Dr. J. S. Meyer; "Diagnosis and Treatment of Diseases of the Sigmoid Flexure of the Colon," Dr. W. H. Soper.

Application for Membership

(With Names of Members Proposing Them)

FIRST PUBLICATION

W. A. H. Steinmann, 5428a Magnolia Avenue.—O. H. Brown, Frederick Hagley.

John Dawson Hayward, 5455 Page Boulevard.—M. R. Hughes, Leon Straus.

John P. Murphy, 919 N. Taylor Avenue.—H. W. Lowenstein, P. Y. Tupper.

Wm. J. Sparhawk, 6821a Manchester Avenue.—A. R. Kieffer, G. W. Cale, Jr.

Cyrus Eben Coffee, 705 S. Broadway.—C. L. Munson, Percy H. Swahlen.

J. H. Cochran, 4252 Maryland Avenue.—C. R. Vossburgh, Roy Ph. Scholz.

Edwin L. Mize, 2821a N. Vandeventer Avenue.—Geo. Richter, Chas. H. Hughes.

T. K. Bowles, St. Luke's Hospital.—L. H. Behrens, L. C. McAmis.

SECOND PUBLICATION

Aloys S. Heithous, 2919 Accomac Street.—Frederic Hagler, F. W. Bailey.

Quitman U. Newell, 611 N. Jefferson Avenue.—H. S. Crossen, Henry Schwarz.

H. B. Shedd, City Hospital.—C. E. Burford, George Richter.

CAMDEN COUNTY MEDICAL SOCIETY

The officers and members of Camden County Medical Society met at the office of Dr. G. M. Moore, Linn Creek, February 18. The meeting was called to order by the president at 7:30 p. m. After the general business was disposed of the members present joined in a general discussion of "Fractures and Dislocations."

Dr. G. T. Myers was elected delegate to the Missouri State Medical Association, and Dr. G. M. Moore, alternate. The meeting then adjourned for a banquet held in the Odd Fellows Hall where all had an enjoyable time and went away feeling that they belonged to a profession second to none.

The next meeting will be held at the office of Dr. E. G. Claiborn of Decaturville, on the first Monday in May at 7:30 p. m.

G. T. MYERS, Secretary.

CASS COUNTY MEDICAL SOCIETY

Cass County Medical Society met in Harrisonville, February 13. The following members were present: Drs. B. B. Tout, president; H. S. Crawford, secretary; T. W. Adair, W. F. Chaffin, S. W. Fair, J. S. Triplett and R. M. Miller.

After the reading of the minutes of the last meeting, the following program was carried out: Dr. W. F. Chaffin read a paper on "Magnesium Sulphate." This was a very excellent paper and all the members present took part in a lengthy discussion of the same. Dr. S. W. Fair reported a case of "Foreign Body in the Bronchi." He gave a very interesting talk on the methods of removing the same and several members took part in the general discussion.

Several of the members reported some interesting cases under their observation and a short time was devoted to discussing other medical subjects.

A resolution was adopted asking the state senator and representative of this district to oppose Senate Bill No. 149.

H. S. CRAWFORD, M.D., Secretary.

FRANKLIN COUNTY MEDICAL SOCIETY

The Franklin County Medical Society was called to order in regular session by the president, Dr. Walter P. Mattox, at 5 p. m., February 4, in the offices of Dr. H. A. Booth, Pacific.

The following members were present: Drs. C. F. Briegleb, H. A. Booth, W. P. Mattox, B. E. Mankopf, O. L. Muench and H. A. May.

Visitors: Drs. David A. Seibert, Washington; Frank P. Dunn, Washington; William C. Miller, Labaddie; Edmund D. Tucker, Gray Summit.

Report was made of the issue of transfer cards to Dr. Albert L. McNay to the Wyandotte County (Kansas) Medical Society, and to Dr. Edwin L. Hume to the Crawford County (Missouri) Medical Society.

The committee appointed at the last meeting to act on the petition for membership of Dr. David A. Seibert of Washington reported that the application was not in conformity to the constitution and by-laws, and recommended that the application be made anew, and landed in at this or some subsequent meeting. The new application was handed in at this meeting.

Other applications for membership were: Drs. Frank P. Dunn, Washington; Joel D. Maupin, Washington; William C. Miller, Labaddie, and Edmond D. Tucker, Gray Summit.

Resolutions opposing the passage of the optometry bill by the state legislature were adopted, and a copy ordered forwarded to our senator and to our representative at Jefferson City.

The secretary was ordered to apply to the secretary of the state association for a charter.

The constitution and by-laws, prepared and adopted by the committee on organization of the American Medical Association, which were partially adopted by this society in December, 1912, were fully adopted at this meeting and declared to be the constitution and by-laws of this society. It was ordered that 100 copies of the constitution and by-laws be purchased and a copy sent to all members in the county.

The subjects of public instruction regarding tuberculosis, and the public denunciation and condemnation of quackery and advertising of patent medicines, were brought up and discussed at some length by Dr. Charles F. Briegleb. The members and visitors listened with interest to the remarks of Dr. Briegleb, and all agree that the subjects in question are of great importance and should receive further attention. We hope the society may consider these subjects soon, and that some substantial action may be taken.

Though a few members only were present at this meeting we are pleased at the enthusiasm manifested. We hope the members will continue to attend the meetings, and those who are not regular attendants are invited to be present at every meeting and assist in building up and making our society so entertaining and instructive that it will require a very great repelling force to keep them away.

The next meeting will be held in Pacific on the sixth day of May, and an invitation is extended to all to be present.

H. A. MAY, M.D., Secretary.

HARRISON COUNTY MEDICAL SOCIETY

A meeting of the Harrison County Medical Society was held at Ridgeway, February 17, 1913, in the offices of Dr. W. Wiley.

The meeting was called to order by President J. H. Morrow and as no papers or program was prepared only a business session was held.

Since the officers of the past year have held over longer than customary, by virtue of fact that no meeting was held, an election was in order previous to other business. Same was held with the following results: president, Chas. H. Robertson, Eagleville; vice-president, Leslie Webb, Mt. Moriah; secretary-treasurer, O. A. Schmid, Bethany; board of censors, A. Williams, Ridgeway; Lake Brewer, Ridgeway; J. Wilson, New Hampton; delegate to state association, W. Wiley, Ridgeway; alternate, E. Dunkeson, Hatfield.

The newly elected officers were installed which concluded affairs of the meeting.

A committee, composed of Drs. Webb, Morrow and Schmid, was selected by the new president to arrange a program and lay plans for a meeting to be held at Ridgeway, the second Tuesday in April. This committee was instructed to invite all non-members in the county to this meeting. Every member was instructed to consider himself a committee of one to bring all dilatory members, and at least one non-member to the meeting and a strenuous effort will be made to induce the visitors to become members.

Another, and even more elaborate meeting, will be held in Bethany in June, the exact date to be decided later. At this meeting again all physicians will be invited and several St. Louis, Kansas City and St. Joseph physicians will be asked to be present. An afternoon and evening program will be arranged, concluding with a banquet. The plans for this meeting are in the hands of a committee consisting of Drs. Broyles, Schmid and Wilson appointed by the chair.

Dr. Talbot S. Duff, Cainesville, was elected a member of the society.

More interest and enthusiasm in local society work was shown and more good feeling existed between members than at any previous meeting. There was every indication that every member realizes the benefit and importance of a good society and to be a member of it.

O. A. SCHMID, M.D., Secretary.

JACKSON COUNTY MEDICAL SOCIETY

Sessions are held in the rooms of the Kansas City Medical Library on the thirteenth floor of the Rialto Building, Kansas City, every Tuesday evening at 8 o'clock. Visiting physicians cordially invited to attend.

MEETINGS AND PROGRAMS

GENERAL SECTION

Sessions are held in the rooms of the Kansas City Medical Library on the thirteenth floor of the Rialto Building, Ninth Street and Grand Avenue, Tuesday evenings at 8 p. m. Both phones Main 1769. Visitors welcome to professional programs.

Tuesday Night, March 18, 1913.—"Arterial Hypertension—Etiology, Significance and Therapy," Scott P. Child; "Degeneration and Complications of Uterine Myomata," W. A. Shelton; discussion opened by W. J. Frick.

Tuesday Night, March 25, 1913.—"X-ray in Gastro-Intestinal Diagnosis," E. H. Skinner; "X-ray in Constipation," Logan Clendening.

EYE, EAR, NOSE AND THROAT SECTION

Thursday, March 13, in Library Room, Rialto Building.—Presentation of cases, specimens, including Dr. Thomason's case of a "Boy's Eye Burned with Acid from the Rupture of a Golf Ball, and Lantern Exhibits of Pathologic Specimens of Eye," T. S. Blakesley; "Fitting of Glasses by Oculists and Optician-Optometrists," J. S. Weaver; "Relative Values of Eye Antiseptics," J. W. Howard; "Optic Atrophy and Uveal Diseases Due to Toxins of Endogenous Origin," J. W. Sherer.

THE OBSTETRIC AND PEDIATRIC SECTION

Will meet in the office of H. O. Leonard, 519 Shukert Building, Thursday, March 13, 1913. Report of cases: "Puerperium Complicated with Typhoid Fever," Dean S. Rising; "Air Embolism," Eugene Hamilton; "Hydrocephalus, Spina Bifida, and Double Talipes Equinus," J. G. Lapp; "The Problems of Occipito-Posterior Positions," G. C. Mosher; "Certified Milk and its Relation to the General Milk-Supply," Edwin Henry Sehorer.

The following have made application for membership: L. P. McKeehan, recommended by J. C. Lynch, W. K. Trimble and J. C. Lichtenberg.

Edward P. Hall, recommended by W. K. Trimble, F. E. Murphy and G. H. Hoxie.

JASPER COUNTY MEDICAL SOCIETY

The Jasper County Medical Society held its annual meeting Jan. 7, 1913, at the Connor Hotel, Joplin, at which time the officers for 1913 were installed.

The meeting was well attended in spite of the disagreeable weather. All present were enthusiastic over the prospects for the new year and were determined to make it the best year in the history of Jasper County Society.

The officers installed for 1913 are: Jackson B. Taulbee, president; Arthur M. Gregg, vice-president; A. N. Bobbitt, secretary; Mitchell C. Shelton, treasurer; Wm. H. Lanyon, censor.

The meeting adjourned at 9:00 that the members might join the ladies in the parlors and proceed with the annual banquet.

Dr. Taulbee, the new president, presided as toast-master and each member was given opportunity to exhibit his ability as an "after-dinner man" before the ladies. As usual some acquitted themselves nobly and some even "more nobly."

Between courses vocal numbers were rendered by artists from one of the theaters.

A. N. BOBBITT, M.D., Secretary.

LAFAYETTE COUNTY MEDICAL SOCIETY

The regular bimonthly meeting of the Lafayette County Medical Society convened at Higginsville in Dr. W. A. Braecklein's office.

The meeting was called to order by the president, Dr. W. A. Braecklein; the secretary, Dr. Clayton, not being present, Dr. Moore, Corder, was chosen acting secretary.

Those present were Drs. Braecklein, Carthrae, Sr., Fischer, McLennon, Moore, Ott, Oetting, Ryland, Schneider and Schreiman.

An instructive paper was read by Dr. C. T. Ryland, entitled "Pains in the Back." The paper was extensively discussed by the physicians present.

Dr. Moore, Corder, was unanimously endorsed for the position as superintendent of the Hospital for the Insane at Fulton.

At a previous meeting Dr. J. A. Schneider was elected a member of the board of censors for a period of three years.

The program for April 8 meeting follows: A paper, "Serum Therapy," by Dr. W. A. Braecklein; a paper, "Causes of Delayed Labor," by Dr. T. A. McLennon.

A clinic conducted by Dr. C. C. Conover, Kansas City.

FERDINAND SCHREIMAN, M.D., Secretary.

NEW MADRID COUNTY MEDICAL SOCIETY

New Madrid County Medical Society met Friday, Jan. 31, 1913, 7 p. m., at Portageville. This was an adjourned session of the December regular meeting at which no regular business was attended to on account of so few of the members in attendance, this being the time that the quarantine was in effect in this county.

The meeting was held at the office of Dr. Thos. S. Hollenbeck with the president, Dr. Wm. L. Digges, in the chair.

The application of Dr. William N. O'Bannon having been favorably reported by the censors was submitted and he was elected to membership.

Dr. T. S. Hollenbeck reported an interesting and unusual case of dystocia.

D. H. A. Killian, Portageville, presented a splendid argument for a more concerted action between the medical members and the non-medical members of the County Board of Health.

Dr. Pinkney M. Mayfield, Portageville, discussed the relation of the medical man to his community in instituting and helping to enforce quarantine regulations in epidemics. The society then adopted the following resolution:

WHEREAS, There is introduced in the legislature an optometry bill and as the same appears against the best interest and welfare of the public; and

WHEREAS, License is asked without providing for adequate knowledge of anatomy, physiology and pathology of the eye; be it

Resolved, That the New Madrid County Medical Society express itself as opposed to said optometry bill; and be it further

Resolved, That a copy of these resolutions be sent our representative and senator, also become a part of the minutes of this meeting.

The following officers were then elected: president, William L. Digges, New Madrid; first vice-president, Charles S. Blackman, Parma; second vice-president, H. A. Killian, Portageville; secretary, John H. Timberman, Marston; treasurer, William A. Sibley, Marston; censor for three years, Pinkney M. Mayfield, Portageville.

The next meeting is to be held at New Madrid in March, at the time of circuit court as passenger service will be more convenient over St. Louis and Missouri Southern.

JOHN H. TIMBERMAN, M.D., Secretary.

PETTIS COUNTY MEDICAL SOCIETY

The Pettis County Medical Society met in regular session at the court house, Feb. 3, 1913, Vice-President Beekemeyer presiding.

Members present: Wills, Beekemeyer, Wood, Bohling, Titsworth, Loug, W. J. Ferguson, Wheeler, Parkhurst, Monroe, Collins, Morley, C. A. McNeil, Campbell, Holtzen.

Dr. Wills presented a very interesting case of "Patulous Foramen Ovale."

Applications for membership from Dr. K. R. Barnum, Sedalia, and Dr. J. B. Norman, Otterville, read and referred to the censor committee. Motion made by Dr. Monroe and duly seconded, that as Dr. Norman was formerly a member of the Moniteau County Medical Society, the secretary be instructed to write Dr. Norman to send demit from the Moniteau County Society. Carried.

Application for membership from Dr. F. R. Fogle, Otterville, presented by Dr. Monroe. Dr. Fogle being a member of the Cooper County Medical Society, the secretary was instructed to write Dr. Fogle the same as Dr. Norman.

A letter read from State Secretary Goodwin regarding the optometry bill was read. Motion made and seconded that the Pettis County Medical Society pass resolutions the same as made by the St. Louis Medical Society, and copies be sent to Senator Grother and Representative Tyler. Carried.

Letter read from the committee on public policy and legislation regarding speakers to address public meetings held under the auspices of medical societies. Motion made and seconded that the Pettis County Medical Society hold a public meeting in the near future. Carried.

Motion made and seconded that the secretary write the state secretary regarding the possibility of securing Dr. W. G. Moore, St. Louis, to address the public meeting. Carried.

Several interesting cases of disease of bladder were reported by Drs. Wood and Parkhurst.

Committees on hospital bond issue were not ready to report, and were given two weeks more for making report.

The resolutions against optometry follow:

WHEREAS, Certain opticians in Missouri are actively seeking legislation in this state under the name of "optometry" which legislation will give them the sanction of the state to examine eyes and prescribe glasses as a remedy for visual defects; and

WHEREAS, The qualifications required in the petition for such legislation are entirely inadequate to justify the state in conferring such important privileges on any class of people; and

WHEREAS, The bill proposed to be presented for enactment will not prevent the so-called "optometrist" from practicing ophthalmology, which is one of the most important branches of the practice of medicine as defined by the statutes of this state; and

WHEREAS, Such action on the part of the state will tend to elevate to the dignity and importance of a profession in the minds of the public, persons wholly devoid of the essential qualifications for professional attainment; and

WHEREAS, The result of such license will be to establish a class of uneducated and poorly qualified oculists, who will occupy practically the same legal position in the community as is now occupied by the most accomplished physicians; and

WHEREAS, Such invasion of the field of medicine by legislative enactment would be detrimental to the health of the people; now, therefore, be it

Resolved, That in the opinion of the Pettis County Medical Society the granting of such license to opticians or so-called "optometrists" will do great harm to the public by reason of the fact that it gives, to persons who are ignorant of the fundamental principles of diagnosis; ignorant of the profound relation that frequently exists between ocular fatigue and serious nervous disturbances; and ignorant of the many deep-seated, intra-ocular affections; the sanction of the state in the attempt to do work which should only be done, and can only be done, by educated, duly qualified and licensed physicians; and be further

Resolved, That in the opinion of the Pettis County Medical Society the effort of the self-styled optometrists to obtain such legislation should be discouraged and opposed in every legitimate manner and on all occasions; and be it further

Resolved, That the recent indorsement of a proposed optometry bill by Dr. John Green, Jr., a member and former officer of the Missouri State Medical Association, is repudiated and declared not to be representative of the opinion of the Pettis County Medical Society, but was wholly and entirely an expression of his personal views concerning the provisions of this particular bill; and be it further

Resolved, That a copy of these resolutions be sent to Senator Grother and Representative Tyler.

PETTIS COUNTY MEDICAL SOCIETY,

A. J. CAMPBELL, President.

E. E. HOLTZEN, Secretary.

Meeting of February 17

The Pettis County Medical Society met in regular session at the court house, at 8 p. m., President Campbell presiding.

Present: Drs. Albers, McCann, Long, Titsworth, Bohling, Dyer, Morley, Collins, Evans, Campbell, W. J. Ferguson, C. A. McNeil, Knott, Wheeler, Monroe, Holtzen.

Motion made and seconded that the clinics be presented first and other business taken up later in order that the patients might go to their homes. Carried.

The following cases presented by Dr. McNeil: Tubercular hydrops of wrist, patient, male, 35 years old; tuberculosis of knee, girl, 11 years; Pott's disease, boy, 7 years.

Discussion mainly about the two younger patients. The danger of contagion, the great need of proper care and some way of isolation, and the results to be gained by the employment of trained visiting nurses were points especially brought out.

Report of the censor committee by Chairman Bohling. The application for membership of Dr. K. R. Barnum and Dr. J. B. Norman reported favorably. Motion made and seconded that the report of the censor committee be accepted. Carried. Motion made by Dr. Ferguson, and seconded by Dr. Titsworth that the rules of the society be suspended, and the secretary cast the unanimous vote of the society in favor of Drs. Barnum and Norman. Carried. Secretary instructed to notify parties concerned.

Report of committee to consult with the executive committee of the Booster Club regarding the proposed hospital bond issue by Chairman Monroe. This committee has not been able to accomplish its purpose on account of the Booster committee not having held any meeting, and asks that further time be granted. Granted till the next meeting of this society.

Report of committee to consult with the city council about the hospital by Chairman Albers. Dr. Long of this committee is submitting the resolutions of this society to the mayor and city council at their meeting on this same evening, and at our next meeting this committee will report the reply received.

The committee to meet with the Ministers' Alliance has held no meeting, and Chairman Evans asks till our next meeting to report. Granted.

Reading of Society's letter to the State Association Committee on Public Policy and Legislation asking for Dr. Moore as speaker at the public meeting, and reply thereto. Discussion regarding the time this meeting is to be held, and the subject of the lecture. Motion made and seconded that a public meeting be held on or about March 10, that the speaker, Dr. Moore, set the exact date, and that the subject of the lecture be left to Dr. Moore with the interjection of the proposed hospital bond issue. Carried. The secretary was instructed to inform Dr. Goodwin, request-

ing him to notify this Society the date Dr. Moore chooses.

Motion made and seconded that the Chair appoint three members to act as arrangement committee. This committee to appoint members of the Society to confer with and secure the cooperation of the Booster Club, school board, city authorities, labor organizations, churches and other organizations. Carried. Appointed: Drs. Bohling, Morley and W. J. Ferguson.

Report of secretary regarding the Society's resolutions against the optometry bill passed at meeting of February 3. Resolutions the same as passed by the St. Louis Medical Society were sent to Senator Louis Grother and County Representative R. Seaton Tyler on February 4. No reply received from either party.

Reading of letter of February 11 from State Secretary Goodwin regarding the defeat of the optometry bill in the house of representatives, and urging that petitions against this bill be sent to the senator from this district. Also reading of the petition which was sent to Senator Grother as follows: February 13, twelve signatures, all physicians and all members of this Society. February 14, twenty-three signatures, the most prominent lawyers and dentists of Sedalia. February 17, twelve signatures, mostly bankers and business men.

On account of the lateness of the hour, and the Society having accepted the promise of the essayist, Dr. Titsworth, to read his paper at some future meeting, the meeting was adjourned.

E. E. HOLTZEN, Secretary.

POLK COUNTY MEDICAL SOCIETY

The Polk County Medical Society met in Aldrich, Dec. 19, 1912, at the Christian Church with the following physicians present: Drs. A. J. McLaughlin, W. T. Myers, Aldrich; Drs. R. Lee Russell, J. A. Stufflebam, R. D. Dill, Humansville; Drs. J. E. Loafman, J. F. Roberts, Bolivar; Dr. R. W. Paris, Morrisville; Dr. L. L. Hunt, Fair Play. Visitors: Dr. A. H. Madry of Aurora and Drs. Rosebury and Lowe of Springfield.

After the reading of the minutes relating to Dr. S. M. Cossin's death, Drs. R. D. Dell of Humansville and C. N. Hahn of Cliquot were elected to membership.

The Society then listened to a very interesting address from Dr. A. H. Madry, district councilor, on the subject of "Medical Associations and County Organizations," for which the Society, on motion, extended thanks.

The Society adjourned at 12 o'clock and was royally entertained by Drs. Myers and McLaughlin at dinner at the hotel.

The Society met at 1 p. m. On motion, Drs. Madry, Lowe and Roseberry were elected honorary members of the Polk County Medical Society.

Cases were reported by Drs. McLaughlin, Russell, Roseberry, Hunt, Paris and others, and were ably discussed by the members present.

Papers were read by Drs. Loafman, Myers, Hunt and Paris; all elicited interesting discussions from members present.

This being the annual meeting, the following officers for 1913 were elected: R. W. Paris, president; R. Lee Russell, vice-president; A. J. McLaughlin, treasurer; J. A. Roberts, secretary; A. J. Stufflebam, delegate; L. L. Hunt, alternate; J. E. Roberts, W. T. Myers and R. D. Dill, censors.

On motion, a vote of thanks was extended to Drs. Myers and McLaughlin for entertainment, to Drs. Madry, Roseberry and Lowe for their attendance and help in the meeting and to the trustees of the Christian Church for the use of their building.

On motion the Society adjourned to meet the second Tuesday in March, 1913.

J. F. ROBERTS, M.D., Secretary.

ST. JOSEPH-BUCHANAN-ANDREW COUNTY MEDICAL SOCIETY

Regular meeting of the St. Joseph-Buchanan-Andrew County Medical Society held at their rooms Wednesday evening, March 5. In the absence of President A. L. Gray, Dr. C. R. Woodson occupied the chair until the arrival of Dr. A. L. Gray. Fifty-one members present.

Col. J. A. Corby was extended the privilege of the floor and called the attention of the society to the House Bill No. 808, introduced by Mr. Bretz, with the result that the following resolution was adopted and a copy given to Mr. Corby for his use at Jefferson City.

Resolved, That it is the sense of this society that House Bill No. 808 of the Forty-Seventh General Assembly of the State of Missouri, introduced by Mr. Bretz and read for the first time Feb. 19, 1913, is contrary to the best interests of the community, and that we collectively and individually urge each member of the legislature of Buchanan and Andrew counties to use their best efforts to defeat this bill. We consider that the work heretofore done by our City Board of Health has done much to eradicate infected cattle from the dairy herds and to improve the quality of the milk-supply, especially that used for the feeding of infants. The passage of this bill would cause a setback to the unsatisfactory conditions which existed heretofore; also be it further

Resolved, That a copy of these resolutions be sent to each of the representatives of Buchanan and Andrew counties in the legislature, and that this society directs its secretary to send a copy of these resolutions to the chairman of the legislative committee of the Missouri State Medical Society with the request that the influence of the state society be likewise brought to bear to defeat this bill.

The above resolutions were unanimously adopted with the exception of one member, Dr. Gregory.

A committee consisting of Drs. Jacob Geiger, T. E. Potter and J. W. Heddens, presented a set of resolutions on the death of Dr. T. H. Doyle, which were read and adopted by a standing vote. A copy of these resolutions were ordered spread on the minutes and the secretary was instructed to forward a copy to the official journals of the local, state and American medical associations. The resolutions follow:

WHEREAS, It is with the deepest sorrow we are called on to record the death of one of our oldest and most honored members, Dr. Thomas H. Doyle.

Dr. Doyle was both a well educated physician and a gentleman. He was, in his time, a man of great energy, and few St. Joseph physicians have done so much general practice. His devotion to his profession was seldom equaled. He served the poor and rich alike. His only object seemed to be to relieve suffering and do his professional duty. Remuneration for his work was always a secondary consideration.

He was a faithful member of our society, from which he had received many honors; serving alike as its president and often on important committees.

As a teacher in our medical schools, he will long be remembered by those whom he assisted in educating and his teaching will be felt through them at the bedsides of the sick for years to come.

At all times Dr. Doyle evinced a deep interest in public affairs and was an active and consistent church member.

As a citizen, few doctors have had such an influence in the community. He was elected mayor of St. Joseph and held this office two years. He was called at different times to fill other political positions. In these trusts he was faithful and honest; therefore, be it

Resolved, That, as a society we extend to the family and his patrons our sympathy in their great loss; be it

Resolved, That a copy of these resolutions be sent to the family, spread on the records of the society and published in the "*Medical Herald*."

JACOB GEIGER,
T. E. POTTER,
J. W. HEDDENS,
The Committee.

The committee appointed by the president to draw up resolutions regarding the death of Dr. J. W. Leonard, made their report which was adopted and a copy of the resolutions ordered spread on the minutes and another copy sent to the family of Dr. Leonard.

Dr. C. R. Woodson, who was delegated to represent this society at Jefferson City, in the interests of the bills now pending before the state legislature, reported a hearing before both branches of legislature and having received the assurance from the representatives and state senators of Buchanan and Andrew counties, that they would use their best efforts to defeat all adverse bills now before the two honorable bodies.

The program committee through their chairman reported a delay in the arrival of Dr. L. L. Lumsden, from Washington, and that the proposed luncheon had been deferred until Saturday noon, March 8.

Library committee, through Dr. McGlothlin, reported satisfactory progress, and cooperation on the part of the public library in arranging the medical journals and announced that they were now ready for distribution at that place.

The following amendments were read for the second time and unanimously adopted and ordered to be inserted in our by-laws and constitution.

The Duties of the Committee on Medical Service. There shall be a standing committee known as the committee on medical service composed of three members divided into three classes, one member retiring annually, his successor being appointed for a period of three years. To the end that the medical service within the territory of this society may be kept in a state of efficiency, it shall be the duty of this committee to bring the society into active cooperation with all existing agencies therefor. As opportunity offers it shall open the way for the society to act in an advisory capacity and by suggestion, to civil government or to private philanthropy desiring to promote medical service. It shall advise the society regarding broad lines of organization of medical service for both present and future needs along which efficiency may be obtained and waste of effort and capital avoided. It shall make an annual report of its work to the annual meeting of the society.

The duties of the membership committee shall be to ascertain and keep a record of all duly qualified and authorized physicians within the jurisdiction of our society and shall supplement this list at the end of each quarter. It shall furthermore be their duty to solicit the affiliation of all duly qualified physicians. This report shall be kept on file with the secretary.

The Committee on Tuberculosis. The purpose of this committee shall be to carry forward the international humanitarian movement to stamp out tuberculosis and to foster harmonious cooperation between all antituberculosis agencies within the district of this society.

The official investigation by the society into local contract practice of all kinds, which comes up for final consideration March 19, is giving evidence of good results already, in the resignation of several so engaged and changes taking place in the medical service of different institutions, but there will be no cessation of effort until the desired results are obtained in every way.

Attention was particularly directed to lodge contract practice, the systematic efforts of railroad and insurance companies, physicians to persuade the injured to accept their services for after-treatment when their natural preference would have been for the services

of their family physician or physician of choice, and the practice of city, county and police physicians, of accepting fees from persons detained or being cared for at the public institutions of the city and county, or when called in an official capacity to the homes of the sick; referring cases to physician associates, and the tax of prostitutes under the guise of examination fees.

The report of the committee to revise the constitution and by-laws was presented and action thereon will be taken at the next regular meeting.

An exceedingly interesting paper on "The Thyroid Gland," was read by Dr. O. B. Campbell, and the following members took part in the discussion: Drs. L. A. Todd, Floyd Spencer, C. R. Woodson and Jacob Geiger.

W. F. GOETZE, M.D., Secretary.

ST. LOUIS COUNTY MEDICAL SOCIETY

Meeting of January 15

The meeting of the St. Louis County Medical Society met at Webster Groves, January 15, the president-elect, Dr. J. H. Armstrong, in the chair.

Drs. R. M. Funkhouser and E. J. Goodwin addressed the society on the optometry bill.

The society was unanimous in opposing the bill. A committee consisting of Drs. Cape, Wyer and Guibor was appointed to wait on Senator Gardener to discuss the bill.

The meeting then adjourned.

Meeting of February 12

The meeting of the St. Louis County Medical Society met at Webster Groves, February 12, President J. H. Armstrong in the chair.

The society was entertained by Dr. Treveling, Webster Groves, in an address on diseases of the ear, nose and throat, which was well given and well received.

Clinical cases were reported by Drs. Armstrong, Wyer, Townsend, Jones, Mills and others, which were interesting and instructive.

H. MILES, M.D., Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

SODIUM GLYCEROPHOSPHATE (sodii glycerophosphas) is hydrated sodium glycerophosphate, $\text{Na}_2(\text{C}_3\text{H}_5(\text{OH})_2)_2\text{PO}_4 \cdot 5\frac{1}{2}\text{H}_2\text{O}$, containing not less than 99 per cent. of hydrated sodium glycerophosphate. It is crystalline, quite soluble in water, but insoluble in alcohol. Its properties and dosage are similar to those of calcium glycerophosphate (see N. N. R., 1913, p. 118).

SODIUM GLYCEROPHOSPHATE. MONSANTO, is a non-proprietary article and complies with the tests laid down for sodium glycerophosphate. Monsanto Chemical Works, St. Louis, Mo. (*Jour. A. M. A.*, Feb. 8, 1913, p. 442).

VACULES DIGITOL contain digitol 30 c.c. in sealed ampules. The air in the container is removed before sealing, whereby, it is claimed, deterioration of digitol is retarded (*Jour. A. M. A.*, Feb. 8, 1913, p. 442).

HEDIOSIT is the lactone or inner anhydride, $C_{17}H_{33}N_7$, of alpha-glucosheptonic acid, $CH_2OH.(CHOH)_6COOH$. It is an odorless powder having a sweet taste and is readily soluble in water. When given to diabetic patients hediosit is said not to increase the amount of glucose in the urine. It is claimed to have a food value equal to the same amount of glucose. It is said to be useful as a sweetener of the food for diabetic patients. Farbwerke-Hoechst Company, New York (*Jour. A. M. A.*, Feb. 15, 1913, p. 516).

ISATOPHAN is methoxy-atophan, 8-methoxy-2-phenyl-quinolin-4-carboxylic acid, $CH_3O.C_6H_4.N.C_6H_4.COOH$.S:2:4. It is a powder insoluble in water, tasteless, and has a slight odor. Its actions, uses and dosage are the same as for atophan. It is also sold in the form of Isatophan tablets, each containing 0.5 gm. isatophan. Schering & Glatz (*Jour. A. M. A.*, Feb. 15, 1913, p. 516).

REFORM IN MEDICINES

SULPHURIC ACID PASTE.—W. A. Pusey reviews the history of the use of sulphuric acid as a caustic. Sulphuric acid has been known since the sixteenth century, and doubtless it has been used as a caustic since that time, for its caustic action is its most obtrusive quality. To prevent its spread beyond desired limits, it has long been the practice to make it into a paste by incorporating with it some inert solid substance, such as sawdust, sulphur, charcoal, asbestos, saffron and lampblack. Pusey states that a sulphuric acid paste may be used effectively to destroy lesions in the skin, but that it is not a desirable agent to use for the removal of blemishes or when cosmetic results are to be considered because the extent of its action is not easily estimated and because, like other mineral acids, its use on the skin is not infrequently followed by keloids or unsightly scars. Even for the treatment of lesions in which effectiveness is the chief or sole end aimed at, as in epithelioma, Pusey believes it is not a preferable caustic (*Jour. A. M. A.*, Feb. 8, 1913, p. 434).

THOREMEDIN.—The claims made for Thoremadin having been questioned, E. R. Squibb and Sons submitted Thoremadin Paste, with the subsidiary preparations, Thoremadin Liquid and Thoremadin Ointment, to the Council with the agreement to discontinue the sale of these preparations if the claims were not found correct. The Council secured the aid of experts to test Thoremadin Paste side by side with a simple sulphuric acid paste, the identity of the two preparations not being disclosed to the experimenters. The result of the experiments together with other evidence showed that Thoremadin Paste possessed no advantages over a simple sulphuric acid paste and hence the Council voted that the several Thoremadin preparations be refused recognition. In accordance with its agreement the firm of Squib & Sons announces that Thoremadin has been withdrawn from the market (*Jour. A. M. A.*, Feb. 8, 1913, p. 462).

PHYLACOGENS.—It is stated in the phylacogen "literature" that they are neither bacterial vaccines or serums as ordinarily understood, but sterile aqueous solutions of metabolic substances or derivatives of bacteria grown on artificial media. In view of the variability in the growth and activity of different strains of the same bacterium and of the same strain

of different times, constant and accurate dosage is not possible. This is an important consideration because the phylacogens are primarily toxins, sometimes sufficiently so to produce even highly alarming reactions. There is no escape from the possibility that such toxic effects may turn the scales against the patient who is the victim of pneumonia or other acute affections already struggling against the full measure of bacterial intoxication (*Jour. A. M. A.*, Feb. 1, 1913, p. 373).

CHOLOGEN.—Chologen is a medical treatment for gall-stones. The treatment consists of three kinds of tablets: No. 1 contains calomel and podophyllin, No. 2 calomel and No. 3 calomel, podophyllin, camphor and menthol. The treatment, according to the promoters, is to be proceeded with in spite of disturbances, such as diarrhea and pain in the abdomen, and is to be repeated regularly for some years. It is worthy of note that experimental work seems to have been performed in an attempt to show that bile produced by this remedy will cause the disintegration or solution of gall-stones. While normal bile has a certain solvent action on gall-stones, calomel and podophyllin do not increase the amount of bile. It is somewhat discouraging to reflect that some physicians entertain so low an estimate of their ability to prescribe such well-known remedies as calomel and podophyllin that they must use them in fixed combinations (*Jour. A. M. A.*, Feb. 1, 1913, p. 383).

THE DANGER OF PROTONUCLEIN.—Reid Hunt and Atherton Seidell have shown that, like the anti-fat nostrums Rengo and Marmola, Protonuclein contains thyroid in amounts sufficient to cause pronounced thyroid effects in many conditions. And yet Protonuclein has been advertised as a "perfectly harmless antitoxin tissue-builder." The danger of using thyroid, the most powerful tissue-destroying drug known, in cases of typhoid, phthisis, etc., for which Protonuclein was recommended, in which the physician is supposed to use every effort to build up the system, is obvious (*Jour. A. M. A.*, Feb. 1, 1913, p. 384).

THE SPECIAL PACKAGE EVIL.—The use of proprietaries by physicians not only suggests self-medication to the patient, says W. C. Wescott, but it also causes the patient to lose confidence in his physician. Those who do not want to have the reputation of prescribing proprietaries should bear in mind that almost all are put up in a distinctive package and that the druggist is most likely to dispense it in this package. As a result it is more than likely that the patient will find it out if a proprietary is prescribed, no matter whether it is Fellows' Syrup with the name blown in the glass or the very ethical and probably valuable atophan with its neat little "star-bespangled" box, even if the physician takes pains to write special directions and the druggist removes the printed label and affixes his own (*Jour. A. M. A.*, Feb. 1, 1913, p. 387).

PRESCRIBING NAMES.—In exploiting Syrup Cocillana Compound, the manufacturers have used a method as old as the nostrum business itself. They have taken a mixture of little-known and therapeutically worthless drugs, added some well-known and valuable drugs and marketed the product in such a way as to lead the thoughtless to imagine that its therapeutic virtues are due to the little-known ingredients. The prescriber believes, consciously or unconsciously, that the cocillana gives to this mixture therapeutic properties that his judgment would tell him he never could ascribe to the well-known ingredients of the mixture (*Jour. A. M. A.*, Feb. 15, 1913, p. 526).

THE EMETIC ACTION OF DIGITALIS.—Having previously shown that the emetic action or "gastric disturbance" of digitalis is produced by action on the vomiting center in the medulla and a property of digitalis itself, Hatcher and Eggleston have now studied

the relation of the toxic dose to the emetic dose in a large number of digitalis drugs and preparations. The results will require a revision of many statements generally accepted by medical authorities. They show that the claims made for the proprietary preparations as to freedom from "gastric" effect, i. e., emetic action, are entirely without foundation. The investigators conclude: We have no means at present of securing the cardiac actions of the digitalis bodies without subjecting the vomiting center to the influence of these agents at the same time, and there is no advantage in substituting one mode of administration, or one member of the group, for another, and the employment of opium to prevent the gastro-intestinal symptoms of the digitalis bodies in ordinary cases masks the appearance of toxic symptoms which should serve as a signal for the reduction of the dose. Our results certainly lend no support whatever to the claims made that digalen, digipuratum, digitalysatum or the fat-free tincture of digitalis is in any way less actively nauseant or emetic in proportion to its cardiac activity than any of the better known and less expensive galenical preparations of digitalis and strophanthus (*Jour. A. M. A.*, Feb. 15, 1913, p. 499).

SYRUP COCILLANA COMPOUND.—It would be hard to find a better specimen of a shot-gun prescription. Not only does the preparation contain eight ingredients, but one of those ingredients (Compound Syrup of Squill) contains three in itself. The drug which gives the preparation its name (not the action) has properties similar to ipecac. Besides Cocillana, the preparation contains two other obsolete drugs, wild lettuce and euphorbia pilulifera. The activity of the "cough syrup," it is needless to say, depends in the main on the drug which is more or less buried in the published formula: heroin hydrochlorid. No doubt it is this drug which makes it "a good repeater." Syrup Cocillana is a nostrum sailing under false colors (*Jour. A. M. A.*, Feb. 15, 1913, p. 537).

MAIGNEN PULV.—The powder is advertised by J. P. Maignen, Philadelphia. It is said to be valuable for the treatment of a long list of diseases and for application in various ways to lesions of the skin and subcutaneous tissues and to the various mucous membranes of the body. The circular states that its germicidal power is 3.75 times as great as that of phenol. Examination in the A. M. A. Chemical Laboratory showed the powder to be apparently a mixture, consisting largely of calcium oxid or hydroxid and sodium carbonate, which on treatment with water results in a mixture containing calcium carbonate and sodium hydroxid. While it is known that strong solutions of alkalies are germicidal, it is also well known that such solutions cannot be used in concentrations which possess any activity. Further, when taken internally as recommended, the alkali will be neutralized by the hydrochloric acid of the stomach. The claims therefore are evidently absurd and not deserving of consideration (*Jour. A. M. A.*, Feb. 15, 1913, p. 537).

FORMALDEHYD DERMATITIS.—W. E. Morgan reports a severe dermatitis caused by the use of alcohol denatured with formaldehyd. So many members of the medical profession have been invalidated physically, incapacitated for professional work, deprived of livelihood and rendered nervous wrecks by this peculiarly subtle and all-pervading vaporous poison that it should be relegated, writes Dr. Morgan, to the uses of the undertaker and pathologist only and then used with extreme care. If used for fumigation, the room and all its contents should be thoroughly aired for at least forty-eight hours (*Jour. A. M. A.*, Feb. 22, 1913, p. 590).

DIORADIN AND DR. BERNHEIM.—Recently the Council on Pharmacy and Chemistry rejected Dioradin, largely because the claims of its chief promoter, Dr. Bernheim, were questioned. In an interesting lawsuit light has

been thrown on the methods of the promoters of Dioradin. For four years Dr. Louis Dieupart was head physician of the dispensary for the tuberculous established at Saint-Denis, at the head of which is Dr. Samuel Bernheim. Bernheim discharged Dieupart for refusal to use Dioradin. Dieupart protested, on the ground of the inefficacy of Dioradin. At the trial he testified that Dr. Bernheim received a commission on all Dioradin used at the Saint-Denis dispensary (*Jour. A. M. A.*, Feb. 22, 1913, p. 608).

BOOK REVIEWS

THE KALLIKAK FAMILY. A study in the heredity of feeble-mindedness. By Henry Herbert Goddard, Ph.D., Director of the Research Laboratory of the Training School at Vineland, New Jersey, for Feeble-Minded Girls and Boys. Pp. 121. New York. The Macmillan Co., 1912. \$1.50 net.

This book is a remarkable document. The information it contains concerns the descendants of a revolutionary soldier, known here as "Martin Kallikak," himself perfectly normal and of a respectable family, who fell in with a feeble-minded girl during his martial career. By this feeble-minded girl the "hero" of this narrative became the father of a feeble-minded boy. From this deficient offspring of an illegitimate union have come 480 descendants. This number includes 143 feeble-minded individuals, and only 46 normals. The other 291 are of doubtful mentality; and where it is not possible to determine whether one is "bright" or not, certainly it is pretty conclusive evidence that such a one is subnormal. The roster comprises a frightful list of immoral, defective and criminal people.

From the connections formed by the 480 direct descendants of the feeble-minded girl and Martin Kallikak have come at least 1,146 persons. Of this interesting congregation 262 were feeble-minded, 197 normal; the balance undetermined with the odds against them.

Upon leaving the Revolutionary Army the soldier, Martin Kallikak, married a respectable and intelligent girl of good family. The descendants of this union have been of an entirely different caliber, which throws the burden of responsibility for the wretched abnormals, fruit of the first union, upon the feeble-minded girl with whom Martin cohabited.

Among the descendants of Martin and the normal girl there have been no feeble-minded offspring; this applies to the collateral branches as well as the direct descendants. The few instances of prodigalism which occurred in the descendants of the normal union were probably due to unfavorable environment not to a constitutional heritage.

The lesson to be gleaned from the history contained in this valuable human document is the necessity of asexualizing the feeble in mind and preventing the reproduction of their kind. The only way to prevent this is to make reproduction impossible. The marriage of a normal with a feeble-minded person will not materially neutralize the condition of the offspring.

BACTERIA. By Dr. Max Schottelius. Translated by Staff-Surgeon Herbert Geoghegan, R. N. Second edition. Pp. 324. Illustrated. Oxford University Press, New York, 1912. Cloth. \$3.50.

This second edition has undergone a thorough revision. The text has been rid of inaccuracies which slipped into the first edition by reason of the hurried publication of that edition.

The chapters on immunity and protective vaccination and on protozoa, have been newly written. A special chapter has been devoted to protozoa because of the new importance given animal parasites in the etiology of infectious disease.

The book is most adequate and is adaptable for distribution in lay circles.

SKIN GRAFTING FOR SURGEONS AND GENERAL PRACTITIONERS. By Leonard Freeman, B.S., M.A., M.D., Professor of Surgery in the Medical Department of the University of Colorado, etc., etc. Illustrated. Pp. 139. St. Louis, C. V. Mosby Co., 1912. \$1.50.

Dr. Freeman's book on skin-grafting is a valuable contribution to the literature of the subject. It gives a thorough review of the different methods and a comparative discussion of their various merits.

The volume is written in twelve chapters and contains about all that can be said on the subject.

PROGRESSIVE MEDICINE. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by H. A. Hare, M.D., assisted by L. F. Appleman, M.D. December, 1912, pp. 381. Philadelphia and New York, Lea & Febiger. \$6.00 per annum.

The contents of the December issue of this valuable digest are devoted to the diseases of the digestive tract and allied organs; the liver, pancreas and peritoneum; kidneys; genito-urinary diseases; surgery of the extremities; shock; anesthesia; infections; fractures and dislocations, and tumors.

PRACTICAL MEDICINE SERIES. Comprising ten volumes on the year's progress in medicine and surgery. Under the general editorial charge of Gustavus P. Head, M.D., and C. L. Mix, M.D. Vol. IX, Skin and venereal diseases, miscellaneous topics. Edited by W. L. Baum, M.D., H. N. Moyer, M.D. Year Book Publishers, Chicago, 1912. This volume \$1.25.

An unusually interesting volume on the subjects indicated on title page with 57 pages devoted to discussion of miscellaneous matter including insurance and contract practice, and eugenics.

PATHFINDERS IN MEDICINE. By Victor Robinson. With a letter from Ernst Haeckel and an introduction by Abraham Jacobi. Pp. 317. New York, Medical Review of Reviews. Illustrated. 1912. \$2.50.

This is a charming collection of biographical essays on fifteen of the great scientists in history.

The author is a deft penman and has builded for us here pen-Alhambras which dazzle by their delicacy and artistry. He thinks exceeding well of the men on whom he has essayed to think—also too well of them; but that is characteristic of Moorish pen-architecture. It is charming, but it does not awe. It furnishes a contrast to Carlyle, who writes in Gothic and whose fabrics frown more often than they smile.

Victor Robinson in this biographical book endows his heroes with all superlatives of good. There is no spot or blemish in any of them. But that is the weakness of charm; it deceives at the expense of fact.

A DOCTOR'S TABLE TALK. By James Gregory Mumford, M.D., Lecturer on Surgery in Harvard University, etc. Pp. 257. Boston and New York, Houghton Mifflin Co., 1912. \$1.25 net.

The author tempts us to neglect duty that we may enjoy his book uninterrupted. Nine essays comprise the volume; they deal with random subjects—just a doctor's table-talk—and they are superbly natural. The conception reminds us of Holmes, while the diction is reminiscent of old "Christopher North" of most blessed memory.

DISEASES OF THE EYE. By C. Devereux Marshall, F.R.C.S., Surgeon to the Royal London (Moorfields) Ophthalmic Hospital, etc. Illustrated. Cloth. Pp. 303. New York, 35 W. 32d St., University of London Press, 1912. \$3.75.

This volume is intended primarily for the student or the practitioner of general medicine. It is not a treatise for the expert ophthalmologist, consequently it is lacking in the detail common in volumes designed for specialists.

The work adequately meets the end for which it is intended and its presentation of the familiar aspects of eye disease is concise and eminently practical. Special mention is made of the Edridge-Green theory of light and color vision.

TREATMENT AFTER OPERATION. By Wm. Turner, M.S., F.R.C.S., Senior Surgeon to the "Dreadnought" Seamen's Hospital, Greenwich, etc., and E. Rock Carling, B.S., F.R.C.S., Surgeon to the "Dreadnought" Seamen's Hospital, Greenwich, etc., with a chapter on the eye by L. V. Cargill, F.R.C.S. New York, 35 W. 32d St., University of London Press. Pp. 247. Cloth. 1912. \$3.75.

An excellent text on postoperative treatment for the practitioner. The methods and procedures herein set forth are followed by the authors and have received the benefit of years of practice.

The subject is well covered in the twenty-five chapters in the book, and deal with the matter as thoroughly as is possible in a work of the character and purpose of this one.

DISEASES OF THE SKIN. By Willmott Evans, M.D., B.S., B.Sc., F.R.C.S., Surgeon to the Royal Free Hospital, etc., etc. Illustrated. Cloth. University of London Press, New York, 35 W. 32d St., 1912. \$3.75.

A splendid introduction to the study of dermatology. The forty-four chapters comprising the volume give a first-rate presentation of the common aspects of diseases of the skin. The style is lucid and direct and the work will win its own place in the esteem of the profession.

DISEASES OF WOMEN. By Thomas George Stevens, M.D., B.S., F.R.C.S., M.R.C.P., Obstetric Surgeon, with charge of outpatients, St. Mary's Hospital, etc. Illustrated. New York, 35 W. 32d St., University of London Press, 1912. \$5.50.

The author gives us a study of gynecological practice on a pathological basis. The theoretical is presented along with the clinical features of the subject in a delightful way. The work is the outcome of ten years' experience in teaching gynecology, and is built on a strong foundation.

The student and the practitioner will find the work a ready help in shedding light on some of the less obvious features of gynecological practice.

The book comprises eighteen chapters with an intelligent index. It will fill a want that has long existed in medical literature.

PROBLEMS OF THE SEXES. By Jean Finot, author of "The Science of Happiness," etc. Translated under the authority of the author by Mary J. Safford. Pp. 408. Cloth. G. P. Putnam's Sons, New York, 1913. \$2.00 net.

An argument for suffragetism—leastwise so intended by the author. The book is well written, but as to whether the facts which he has deigned to notice have been correctly interpreted we leave to your decision.

The author makes the mistake—in which he is sadly not alone—of assuming that woman has occupied an inferior position through the ages, and he concludes that she is about to enter upon a great enfran-

chisement and lend herself by reason of her emancipation to the redemption of the world from all that is unlovely, sordid and generally objectionable. He heralds a sort of glorified gynecocracy.

Woman's sphere has never been inferior to that of man's; but it has always been utterly different—and will be world without end. Who shall say that she does not rather excel man as wife, mother and tender minister. We would always have her different. The few examples of females who have made themselves as one with man in man's world-business have been examples of women who were not women; pseudo-hermaphrodites merely.

History is a circle. Woman is always the object of considerable discussion, and now and then the discussion gets a little wild, but it calms down just as often and women continue through it to be the wife, the mother and the minister.

LIFE AND LETTERS OF DR. WILLIAM BEAUMONT, including hitherto unpublished data concerning the case of Alexis St. Martin. By Jesse Myer, A.B., M.D., Associate in Medicine in Washington University, St. Louis; with an introduction by Sir William Osler, Bt., M.D., F.R.S., Regius Professor of Medicine in Oxford University, England. With 58 illustrations. St. Louis, C. V. Mosby Company, 1912.

American medical biography is already fairly large, varied and interesting. The medical historian can point with pride to the pathetic account of James Jackson, Jr., by his father; the vivid "story" of Marion Sims and the amiable and garrulous memoirs of Samuel D. Gross as a few of the more conspicuous examples. The work now under review deserves a rank among the highest.

Much as William Beaumont has been written about and talked about, a complete biography has not hitherto been made. Dr. Myer had a rare opportunity, as his subject had, and he has embraced it with much the same spirit of enthusiasm, of accurate observation, of painstaking and thorough investigation and rather more of clear and methodical expression. He shows, what most writers have missed, the remarkable intellectual character of Beaumont, a character that makes us look to such geniuses as Jenner and Franklin for comparison. Besides his practical activity and his keen insight into the limited gastric physiology of his time, Beaumont from early manhood showed an unusual impulse to make notes, to keep all of his writings, including rough drafts of letters, and also to keep clippings and other printed material bearing on his own work. With rare fidelity all these were treasured by his family—and it is interesting that two generations carry us back from the present time to the year 1785. With as great wisdom as generosity many of the records were entrusted to Dr. Osler, who with his rare combination of knowledge and love of the subject and lucid expression, used them in the preparation of an address before the St. Louis Medical Society in 1902. It was, of course, impossible for Dr. Osler to utilize all the material, and Dr. Myer's work now makes the most important part accessible to all interested in Beaumont, his work and his time. Dr. Myer's preface should be read in this connection, for in a few sentences it reveals one of the romances of actual biographic study.

It may be permitted here to venture some remarks on the final disposition of the Beaumont papers. Dr. Osler has suggested that they should be preserved in the Surgeon-General's Library. The reviewer thinks

this is not the most appropriate disposition. It might be fitting to send to the Army Medical Museum the correspondence between Beaumont and the various government officials, but the miscellaneous notes, letters and other correspondence, and all the scientific material should be left in the city where Beaumont lived so long and, on the whole, so happily. Here too, in connection with the papers, there should be some sort of tablet or monument, as a recognition on the part of the medical profession and the population, of the illustrious physician who worked here so modestly after he had accomplished a work and received honors that would have unfitted most men for the exacting demands of general practice.

Dr. Myer has done well to trace back Beaumont's ancestry and to picture for us the setting in which young Beaumont grew up—that remarkable New England of hard living and high thinking, where village boys of little schooling wrote easily in the style of Addison and Johnson, with a little of the Shorter Catechism. The letters, so fortunately preserved, show us the serious mind of the youth, but a mind that also burst out in exuberance. The notes on cases seen in the practice of his preceptor, and those made in the war of 1812 exhibit the habitual order and industry that were to be so useful when the fateful load went into St. Martin's stomach. There is a most important example of medical study before the days of entrance examinations and graded courses. How useful such study may be is finely illustrated by the contrast between the frontier surgeon and the university professor, Berzelius, who appears as a typical "Zopf-gelehrter." With Beaumont the possibility of investigating the gastric juice quickened all his thoughts. With Berzelius, there were only the difficulties, the necessity of knowing what he was to investigate, the danger of failure, or even of leaving the beaten track.

The story of the work has often been told, but can never be read too often and we shall not anticipate the pleasure that may be derived from reading all that Dr. Myer has given by abstracting it. Much has been added to the fascination of the story by appropriate local touches. We see Beaumont as he lived and worked among crude and often squalid surroundings. We hear the songs of the voyageurs, see the rough sports of the *coureurs des bois*, the wiles and cruelty of the Indians and the schemes of the fur magnates. We perceive the distances, the isolation of life, the slow travel by canoe or horse, the simplicity in which the sight of a canal with locks excited an emotion not less than that caused now by the first sight of an aeroplane.

Very instructive is the part describing Beaumont's efforts to obtain government assistance; the wise sympathy of the first surgeon-general, Joseph Lovell, the narrowminded bureaucratism of others. Yet, just such efforts as Beaumont's, in time, have brought us a very different state of affairs. Particularly interesting to Missourians are the later chapters, with their glimpses of family life, of practice and of professional amenities in the middle of the nineteenth century.

A final chapter deals with the last days of St. Martin, and gives an abstract of early cases of gastric fistulas, and a list of the literature consulted in the preparation of the work. Much praise is due for the large number of interesting illustrations, portraits, facsimiles of manuscripts and other material, views, etc.

The proof-reading and typography are excellent, the bookmaking on the whole creditable to the publishers. The work is warmly recommended to all who are interested in medical history and Americana.

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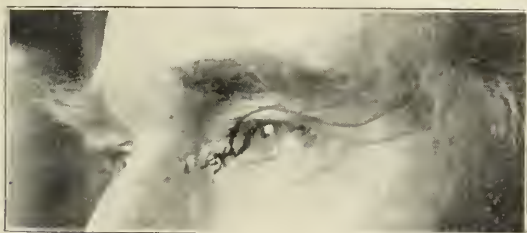
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ORIGINAL ARTICLES

CARCINOMA ABOUT THE EYE *

E. H. SKINNER, M.D.
KANSAS CITY, MO.

Among certain American authorities (Stellwagon, Hyde, Pusey and Shoemaker), and these parallel quite closely certain European dermatologists (Uma, Lazear, Schultz and Weichselbaum), we find three grand divisions of carcinoma cutis: the superficial, deep and papillomatous.



No. 1. Superficial epithelioma of the inner canthus.

From a more or less limited experience, we find these three types appearing about the eye in the following manner: the superficial type usually appears at the inner canthus and adjacent nasal surface; it may be found in any location about the eye, but rarely if ever on the lower lid. This superficial type is, of course, found on the cheek, the temple and forehead, especially in a skin of the hyperkeratitic type, but from the viewpoint of the ophthalmologist, this is the type usually found at the inner canthus. The deep type is seen on the forehead, extending so deeply in the tissues that it involves the bone. The papillomatous growth is usually on the lower lid and is the type which Dr. Gosney reports. A short description of each type may not be amiss.

*Presented before the Eye, Ear, Nose and Throat Section of the Jackson County (Missouri) Medical Society, Jan. 9, 1912.

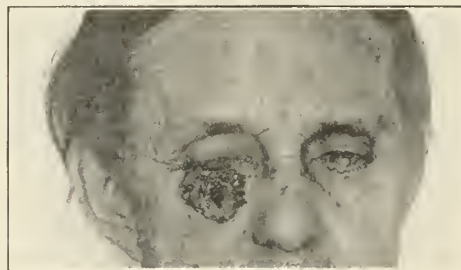
SUPERFICIAL OR DISCOID EPITHELIOMA

"Superficial or discoid epithelioma usually is displayed first on sound skin in the form of one or of several pinhead-sized papules, flat infiltration disks, or nodosities of a dull-yellowish, red-



No. 2. Healed result of No. 1 after x-ray treatment.

dish, grayish or dirty wax-like hue. The growth may also have its origin in previously existing skin lesions which are both numerous and different from one another. Among the latter may be named: fissures and excoriations (especially those long teased by caustic application); warts, nevi, acneiform and molluscoid lesions; and the dry or greasy epidermal scales often seen at the orifices of sebaceous glands in the faces of the aged. The outline of the newly developed growth as a consequence varies, being roundish, linear

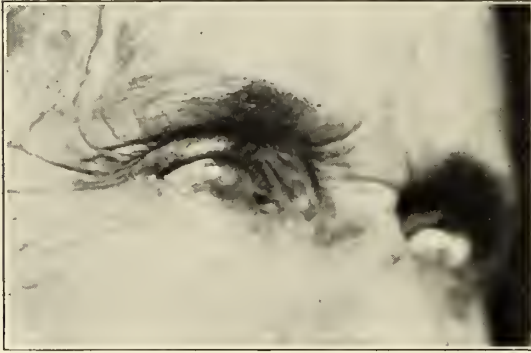


No. 3. Papillomatous epithelioma of lower lid.

or irregular. As a result of accident or traumatism (especially scratching and picking, which the history of a large proportion of all cases includes) there forms a superficial excoriation, which may be covered with a serosanguineous crust after the desiccation of its scanty and

ichorous secretion. In the progress of its development it is often noticed that new foci of disease appear in the immediate vicinity of the first, represented by subepidermic indurated nodules, or superficial "pearls" resembling milia, whitish and lustrous, with marked tendency to vascularization, exfoliation and superficial ulceration." (Hyde: Diseases of Skin, p. 736.)

The rodent ulcer is of the same pathology as the superficial type and is found less frequently



No. 4. Healed result of No. 3 after x-ray treatment alone.

now because of satisfactory early treatment. The superficial epithelioma of the inner canthus may develop characteristics which classify it as a rodent ulcer but the pathology and treatment is not altered thereby.



No. 5. Superficial epithelioma at inner canthus and upon cheek and nose.

We see so many of these superficial epitheliomas at the inner canthus and are constantly reminded of the sun cancer described at one time by Hyde,¹ and the hyperkeratosis developing in farmers who are exposed to the dry sandy winds, and most excellently described by McBride. (Citation cannot be found.)

1. Hyde: Am. Jour. Med. Sc., 1906, cxxxi, 1-22.

DEEP OR TUBERCULOUS EPITHELIOMA

"This variety may originate in the manner already described, or may be from the first characterized by its specific features. It commonly



No. 6. Healed results of No. 5 after x-ray treatment.

begins by the formation of roundish, very firm, pea-sized nodosities, closely set in the skin and subcutaneous connective tissue, or be thus situated and well projected from the surface. In the course of months and years these nodules develop to form a nut-size, or even a small egg-sized tumor, roundish, dark reddish in color, and deli-



No. 7. Papillary epithelioma of nose.

cately vascular on the surface. This tumor may be a deep, flattish or globoid development within the skin; or be a well-defined nodule attached to it; or (and this is a common form) be a dense thick, flattened plaque, a centimeter or more in diameter, its walls steeply descending to the sound skin on either hand or moderately everted; its center depressed by atrophic changes; its surface shining, waxy, pinkish or red, with ramify-

ing capillaries. "Satellites" may form in its vicinity.

Degeneration of these forms produces in the course of time an ulcer either like that described above, or one which deeply and destructively encroaches on the tissues beneath. In advanced cases the ulcer is irregular in contour with a clean-cut, everted, indurated lip; eroded and "gougled," hemorrhagic and granulating floor; thin, viscid secretion which is foul and purulent at times when the resulting destruction is rapidly accomplished; and a deeply attached base which may be perforated by a crateriform exulceration, extending down to or through muscles, fasciae, cartilage and bone. The lymphatic ganglia become simultaneously involved, and a general cachectic condition is established. Death may ensue from marasmus, exhaustion or hemorrhage in the course of several months or from one to three years." (Hyde, loc. cit., p. 739.)



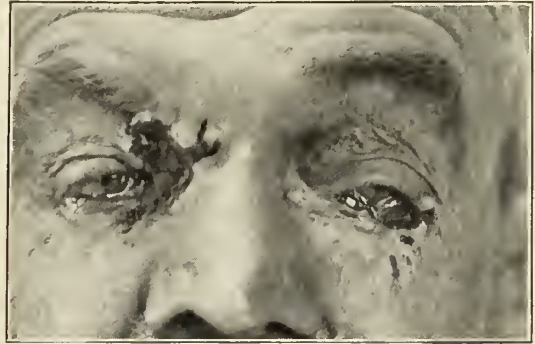
No. 8. Healed result of No. 7 after x-ray treatment.

PAPILLARY EPITHELIOMA

"The cancer in this variety assumes the form of a malignant papilloma. In these cases a pedunculated or sessile, narrow or broad-based, smooth-capped or spongy and verrucous vegetation is attached to the skin on which it forms. It may originally be as small as a pea, but usually it increases considerably in volume, being not rarely pigeon-egg and turkey-egg size. The surface is either dry, reddish yellow, smooth and lustrous; exfoliating and secreting an offensively smelling sanguineous or translucent fluid; or is moist, granulating, filamentous and intermingled with hairs, as when it occurs on the bearded cheek. Degeneration occurs later, fissures forming first; subsequently there appear superficial, and finally deep ulcers which ultimately assume all the features of the epithelioma described above. In some cases the epithelioma forms a soft, hemispherical, small nut- to egg-sized tumor, which on pressure discharges numerous convoluted plugs,

composed of epithelium, fatty masses and a purulent secretion. The bases of these soft masses are remarkable for the ease with which they can be curetted and thus radically removed.

"A careful study of well-marked cases of papillary epithelioma indicates clearly that while ulceration often results, the center of the mass breaking down and furnishing a typical cancerous excavation, with hard and rounded or oval border, uneven base, irregular granulating floor and



No. 9. Epithelioma of eyelids.

offensive discharge, the picture may be wholly different. Occasionally the superficial process extends widely over the brows, cheeks and chin, interspersed with raised cicatriform areas, suggesting that ineffectual attempts had been made to check the disease by surgical measures. These apparently atrophic disks are mingled with vascular, florid, fungiform, pyriform and oddly-shaped epithelioma. They may be seen gluing the lobe of the ear to the cheek, or everting the



No. 10. Result of x-ray treatment of No. 9. Patient left city too soon. The contractions demand surgery.

lower lid, even when superficial papillary vegetations are predominant features of the disease." (Hyde, loc. cit., p. 740.)

A precancerous condition of the skin which invades the skin about the eye deserves mention. I refer to hyperkeratosis or senile atrophy of the skin. These scaly lesions develop into superficial epitheliomas by progression or irritation. We frequently see a distinct superficial ulcerating epithelioma surrounded by many scales hyperkeratosis. These yield readily to x-ray therapy

but may return sooner or later. The *x-ray* remains potent for any recurrences.

Treatment.—Radiotherapy will almost invariably clear up the superficial type. Where there are pearl formations in the edge of the growth there may be recurrences, but these can in turn be cleared up by radiotherapy. The cosmetic results are splendid. If there is too much involvement of the lids at the inner canthus there may be some tension toward the canthus. If the lower lid is involved the tear duct may become occluded but it is surprising what splendid reestablishment of the tear duct Nature may effect on the recession of the infiltration of these tissues. Plastic operations are rarely required at the inner canthus and the surgical removal of the growth before radiotherapy produces a poorer result than the primary radiotherapy and heal-

knowledge. It is true that I have reduced the size, the odor, the pain, but never absolutely cured. The treatment is reasonable and justifiable, but not curative.

Now the papillary type on the contrary is wonderfully responsive to radiotherapy. It seems to actually melt away like an icicle in the sun. The lid usually heals with some retraction and eversion commensurate with the extent of the pathology and these results lend themselves to plastic reformations.

Especially do I wish to call attention to the absence of any demonstrable influence of the *x-ray* upon the bulbar tissues. Many of these papillary growths have been treated where it was



No. 11. Superficial epithelioma taking the appearance of deep involvement. This case was healed by the *x-ray*.

ing followed by plastic surgery for deformities of the tear duct or lids. A flat, white cicatricial skin is the result of radiotherapy. There is rarely any metastasis from the superficial type of carcinoma cutis as long as it remains superficial, but as soon as it involves the deeper structures and bones it becomes of different pathological and therapeutic significance.

The deep carcinoma cutis of the forehead and rims of the orbit is amenable to *x-ray* therapy as long as the bone is untouched and the glands remain free from metastasis. When the bone and glands become involved the case is beyond radiotherapy except metaphorically. The surgical removal of the involved bone widely and the excision of glands is only a delay in the progress of the disease and is therefore a legitimate procedure but never otherwise. No cure is accomplished. It can almost be spoken with certainty that the so-called cure of deep carcinoma is a spontaneous exhibition of tissue regeneration or involution rather than a result of any therapy of our present



No. 12. Deep carcinoma of face which failed to respond to *x-ray* treatment. Patient rapidly succumbed.

necessary for the eyeball to be in the direct line of the *x-rays* because of physical impossibility of protecting by lead or otherwise and in no case has there been any retinal or humoral change noted. Even the palpebral and bulbar conjunctiva does not take on the turgescence or inflammation that the skin about the *x-ray* treated lesion displays. We do lose the eye lashes in the line of the rays that cannot be covered with protective shields of lead but any untoward bulbar effects have failed to display themselves in my cases. I am aware that there was a report in the *Centralblatt für Ophthalmologie* some four years ago, where a sarcoma of the orbit received *x-ray* and descriptions of the effect of the *x-ray* in this case could possibly have been due to the sarcomatous involvement of the bulb. I realize also that a German manufacturer produces small discs to fit the con-

junctival space, made of material impervious to the ray. But we consider these unnecessary.

The protection required consists of as many thicknesses of lead foil so arranged that the ray only reaches the lesion itself and possibly about 3 mm. of the skin at the edge of the lesion. I use twelve thicknesses of lead foil between adhesive plaster, about 20x24 cm., and cut a hole in this to the size required. Such a method reduces the waste of lead foil and is neat and clean. The tube is always encased in a lead glass bowl with an opening diaphragmed just larger than the lesions. In the superficial and papillary types we use no filters. In the deep type we use leather and aluminum filters to permit the penetrating ray to reach the depths of the growth without too much influence upon the skin and superficial tissues.

CONCLUSIONS

1. X-ray is of unquestioned value in superficial and papillary epithelioma.
 2. Justifiable for palliation but of questionable curative value in deep carcinoma cutis.
 3. No specific effect of the x-ray upon the peculiar tissues of the eye.
 4. The conjunctiva does not show reactions to the x-ray as readily as the skin.
 5. The x-ray should precede surgery in the treatment of superficial and papillary epithelioma.
- Rialto Building.

TREATMENT OF ANTERIOR POLIOMYELITIS*

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The orthopedic surgeon is not greatly concerned with the primary infection in anterior poliomyelitis; his interest centers in what might be termed the sequelæ, the resulting paralysis. As Flexner and others have shown, the paralysis follows pressure anemia in the cord as a result of exudate, which has been induced by some minute organism. Actual destruction of the nerve cells may take place through some toxin. The anterior horns are the ones always involved and the most common site of the disease is the lumbar enlargement, which accounts for the fact that the legs are the parts most frequently paralyzed.

As a result of these pathological changes the nerve cells are either weakened or destroyed. This process shows itself in the muscles either as a temporary weakening or as a permanent paralysis, which also explains the course of the disease. The onset of the paralysis is, as a rule, sudden and rather extensive and does not tend to increase after the first appearance. Following the acute onset there is a rapid improvement for a few weeks, then a slower one up to about a year,

after which there is no further, or very little, change. This fact is an important one to be remembered in the treatment of the disease. No extensive operative treatment should be attempted for at least a year after its onset.

The sequelæ may be considered as immediate and remote, and the treatment varies accordingly.

The immediate results are weakness of limbs and paralysis. The weakened muscles show some degree of voluntary action and usually tend to return to normal power. The paralyzed muscles show no voluntary power. They may or may not tend to improve.

The remote results are, (a) permanent paralysis, (b) contractions of unopposed functioning muscles, with a corresponding stretching of the paralyzed ones. This is exemplified in the shortening of the tendo Achilles, and the contraction of the hamstrings, (c) deformities, as a result of muscular contractions, such as paralytic club foot, talipes equinus, etc.

A few years ago treatment was directed toward the correction of the remote results. In the last few years, however, much care is given to immediate conditions. I will not go into the treatment of the disease itself, but will concern myself mainly with the care of the patient after the paralysis has appeared.

The early treatment should be directed toward the prevention of deformity and of undue strain on the muscles which have been weakened.

The writer believes that the best treatment in the early stages is complete rest and fixation of the affected parts. This is best secured by the application of a light, loose-fitting plaster-of-Paris bandage over plenty of sheet cotton. The paralyzed limb is held in the position assumed when the muscles are in equilibrium. Plaster bandaging is especially valuable in paralysis of the muscles of the foot, the hamstrings and quadriceps, or when the muscles of the back are affected. When the muscles at the hip are paralyzed, the same end may be reached by placing the patient on a frame and holding the back and legs in the normal position.

The deformities to be feared in the acute stage are, toe-drop with a compensatory shortening of the tendo Achilles, contraction of the hamstrings and contraction of the tensor vagina femoris, causing flexion of the thighs. This latter deformity is very insidious in its development, and is usually not noticed until the patient tries to stand erect. It is most common in infants, and is caused by the tendency of the thighs to be flexed slightly and abducted. Large wads of diapers are a very potent factor in its development, as they naturally tend to produce this position.

The assumption of a position of deformity for even a comparatively short period results in a stretching of the weakened or temporarily paralyzed muscles and in a loss of tone.

* Read before the St. Louis County Medical Society, Nov. 13, 1912.

As power returns, this abnormal condition must be overcome before the muscles can begin to functionate. In neglected cases this deformity is so great that the weakened muscles are unable to overcome it and remain paralyzed.

Fixation, then, prevents deformity and at the same time tends to hasten recovery. It is also claimed that by keeping the patient at rest, further irritation to the diseased nerves is prevented and that the amount of nerve destruction is lessened. Complete fixation and rest should be maintained until all joint sensitiveness has disappeared. This symptom is often a very prominent one in anterior poliomyelitis. Where it does not exist, fixation should be maintained for at least a month. After that the cast may be split and so worn for another month; or a light brace may be applied which will hold the limb in the same position as the cast. During this period, the paralyzed limbs should be massaged twice a day. When possible, this should be done by a trained masseuse, but if this is impossible the mother may do it. The massage should in all cases begin at the extremities and should consist in an upward motion composed of a gentle massage of the joints and a deep but gentle kneading of the muscles. Cocoa butter should be used in this process and it should, if possible, take place before a fire, in order that the limb may be thoroughly warmed. Electricity may be used, but is not as valuable as massage. The current should be weak and its application for not more than five minutes. After massage, the limb should be put through all normal ranges of motion to the extreme limit, and at the same time voluntary motion should be encouraged.

At the end of from six to eight weeks the patient should be allowed to use the affected limb as much as possible, within the limit of fatigue, carefully guarded, however, with braces. This treatment should be continued until recovery, or until all improvement has ceased.

Up to the present, no medicine has been found of any value. The use of the iodids has been recommended, to promote absorption of the exudate, but so far their value has not been proved. The important thing in addition to fixation is to keep the general condition as good as possible.

If the patient has been carefully watched during the acute stage he should reach the end of the first year with no permanent deformity, and with only the disability due to the residual paralysis.

If, however, he has been neglected, he will probably have several secondary deformities as a result. The most common of these is contraction of the unparalyzed muscles and tendons, resulting in a short tendo Achilles with an equinus position of the foot, paralytic club foot, or flat foot, contracted hamstrings, flexed hips or possibly scoliosis.

In the first instance, in which the patient has been properly cared for, the treatment consists in the application of such braces as will aid in walking, and at the same time prevent contraction deformity, the danger of which is always present.

The lighter and simpler a brace the more efficient it is. It should be so designed as to allow as much motion in the paralyzed limb as is consistent with proper locomotion. At the same time it must prevent contraction beyond the normal of the unparalyzed muscle, while at the same time it prevents undue stretching of the paralyzed muscles. If the muscles of the back are affected the patient must constantly wear either a brace or jacket of some sort, to prevent the development of scoliosis.

In those cases in which deformity has resulted this must first be corrected. This is usually accomplished by stretching the shortened tendons or by tenotomies, after which the limb is put in a corrected position and is held there by a brace.

At present, the practice is to do away with braces as much as possible by establishing stability through operative means. There are a number of these employed which have been successful and have given satisfactory results. The operations most often used are, arthrodesis, tendon transplantation, suspension by silk ligaments, Whitman's operation and nerve anastomosis.

In arthrodesis the aim is to secure a stable joint by causing bony or strong fibrous ankylosis in the joint. The articular cartilage is removed and the denuded bone surfaces are brought in apposition. This operation is used in the ankle, knee, and shoulder successfully, but at present is falling into disuse, especially in the ankle. Tendon transplantation is of value in these cases when there are several groups of functioning muscles. One or more of the tendons of these muscles is detached and is transplanted so that it will be able mechanically to take the place of the paralyzed muscles. At first, the normal tendon was transplanted into the paralyzed one, but this was not satisfactory, as the paralyzed tendon stretched; the transplanted tendon, therefore, is now inserted subperiostially. The scope of this operation was greatly enlarged by the work of Lange, who takes braided silk and uses it to lengthen the tendon. The silk is inserted firmly into the end of the divided tendon and is then passed under the tissues or through the tendon sheath to the desired place of insertion. In a comparatively short time the silk becomes infiltrated with a fibrous deposit, forming an almost true tendon. By this method a great variety of combinations may be employed. Lange has used the sartorius muscle to take the place of the anterior muscles of the foot.

From this work of Lange the use of silk ligaments and silk suspension has developed. Silk strands are attached to the tibia above, and the

cuboid and scaphoid below, preventing toe-drop, or, if the *gastricnemius* group is gone, the attachment may be to the *os calcis*. Allison has modified this procedure by passing the silk through a small canal drilled through the tarsals and then running it up through the tendon sheaths on either side and attaching to the tibia.

In those cases in which there is practically no power in the foot muscles, Whitman uses *astragalectomy*. The *astragalus* is removed, the articular cartilage injured, to produce fibrous union, and the foot displaced backward so that the external malleolus may cover the *calcaneocuboid* junction, while the inner is forced into the depression behind the *navicular*. This gives a very stable and satisfactory foot with surprisingly little shortening.

The after-treatment of all these operative procedures consists in the use of plaster for almost six weeks, followed by a brace for six months, so that the various attachments may become firm.

Nerve transplantation has been tried, but up to the present with very little success.

These, then, are the most important operations used in securing stability and a serviceable limb. They are applied mainly to the leg and foot, because these are the parts most commonly affected, and because paralysis of these results in the greatest amount of deformity and disability.

In summing up the treatment, we may say that in the acute stage it consists in absolute rest in bed for the first month, accompanied with and followed by fixation of the limb in the normal position of muscle balance, first by plaster of Paris, then by a light, simple brace. Massage should be employed twice a day as soon as all pain has gone.

In the later stages, if any deformity is present, it should be corrected, and braces should be worn to prevent its development or recurrence. Operative measures are employed to secure stability in the limb and to allow its use without braces.

Metropolitan Building.

NOTES ON THE DYSPEPSIAS, WITH SPECIAL REFERENCE TO DIAGNOSIS *

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ROCHESTER, MINN.

The types of dyspepsia chiefly considered in this discussion will be those which are recurrent or which run a chronic course—types which are usually painful and resistant to ordinary methods of relief, and which make up a large proportion of the cases examined in the Mayo Clinic.

The diagnostician may find it convenient to regard chronic dyspepsia as belonging to one of

four groups. Briefly, the classification may be as follows: First, gross or surgical lesions of the stomach and duodenum, namely, chronic simple ulcer and cancer; second, reflex dyspepsias resulting from diseased conditions of the gall-bladder and appendix chiefly; third, dyspepsias dependent on or associated with constitutional diseases, such as cardiac, renal and hepatic disease, pernicious anemia, chronic pulmonary tuberculosis, arteriosclerosis, syphilis and diseases of the central nervous system; fourth, the so-called functional disturbances of the stomach, including *gastroptosis*.

The first two groups may be regarded as the surgical types, the last two as the medical types of dyspepsia. The large percentage of patients presenting themselves at the Mayo Clinic with chronic gastric disturbances and who have undergone an operation show no demonstrable lesion of the stomach or duodenum. The greater incidence of gall-bladder disease and appendicitis makes up for a major percentage of such cases having a dyspeptic syndrome. It is also to be remembered that chronic indigestion has an occasional source in tuberculosis or malignant states of the cecum or colon, pelvic disorders, pancreatitis, chronic constipation, migraines, disturbance or disease of the thyroid, and rarely *cardiospasm* when advanced with dilatation and food stasis. In many cases the diagnosis is often difficult, taxing all the resources of the clinician. In the surgical types the possibility of two or more lesions must be borne in mind. A surgical lesion which implicates other organs on account of inflammation, perforation or adhesions, often confuse the clinical picture so that frequently a definite diagnosis, even with the aid of skilful laboratory evidence, can only be established by an exploratory laparotomy. This is also true of a certain small percentage of recurring distressing upper or mid-abdominal symptoms in which the pathology as described in the operating-room reveals a familiar lesion, but in which a definite or probable diagnosis could not be made owing to atypical features or the lack of sufficient symptoms. On the medical side discrimination should always be used or the internist may occasionally fail in the recognition of a probable grave condition associated with epigastric symptoms, for example, the dyspepsia and anginoid pains of coronary sclerosis—myocardial insufficiency—or the gastric crises of *tabes*. On the other hand, there is always a large number of patients with a definite trend of symptoms which, if properly elicited, should insure a fairly correct diagnosis.

Surgical lesions of the stomach, duodenum, gall-bladder and appendix often present many symptoms in common in respect to disturbances of digestion owing to reflex secretory and motor disturbances. I will not, however, discuss the probable embryologic and physiologic reason for this association of symptoms or pathology. These

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surgical types will be considered separately as to symptom-complex, and collectively for the purpose of differential diagnosis.

1. *Duodenal Ulcer*.—Duodenal ulcer is unquestionably a more frequent surgical lesion than gastric ulcer. This rule applies in both sexes. In 1,000 operative cases of benign ulcers in the duodenum and stomach as studied in the Mayo Clinic, duodenal ulcer was present in 572 cases and gastric ulcer in 428 cases. This is not a fair relative percentage, however, because the earlier cases in which an ulcer was found in the vicinity of the pylorus were classified as gastric and in all probability many of them were duodenal in origin.

"From June 1, 1906, to Jan. 17, 1911, 621 cases of gastric and duodenal ulcer were operated on, of which 201 (32.5 per cent.) were gastric, 401 (64.5 per cent.) duodenal, and 19 (3 per cent.) were shown to have an ulcer of each viscus. That at least two out of three cases of ulcer will be found to have their origin in the duodenum rather than the stomach is a conservative estimate."

"In the diagnosis of duodenal ulcer four points seem to stand out prominently in the large number of cases: (a) The periodicity of attacks; (b) the number of years (the average is 12½) through which these attacks and intermissions or remissions have run before surgical relief has been advised, or perhaps accepted; (c) the characteristics of pain, its great diagnostic significance and its place in the differential diagnosis; (d) the ready control of all symptoms during the period of attack by the measures that control pain, i. e., food, alkalis, irrigation and vomiting." This is the type of chronic painful dyspepsia, the pain coming on from two to four hours after meals, accompanied as a rule by gas, distress, belching, sour hypersecretion. The next meal usually relieves the pain. Pain may awaken the patient at a regular time each night during an attack. The appetite is usually unimpaired. There may be eructation of food, rarely vomit in early stages unless induced. One-fourth to one-fifth of the cases give a history of hematemesis or melena, or both. The course is usually progressive, and later attacks are usually associated with marked constipation and loss of weight.

The clinical picture is fairly clear in the majority of these cases. The complications are (a) pyloric obstruction with atony and dilatation, (b) perforation, (c) hemorrhage, and (d) adhesions to neighboring organs. The following case report is illustrative of the characteristics of this disease:

Case No. 72731, J. F., male, age 43. Examination Aug. 27, 1912. Family and personal history negative. Denies venereal disease. No bad habits, although fast and irregular eater. Had measles and scarlet fever in childhood, the latter followed by "dropsy." Present symptoms: epi-

gastric pain and sour dyspepsia. For past twenty years has had an attack about two times a year (usually spring and fall), each one lasting six weeks or longer. Progressively worse, especially in past four or five years on account of increased pain. Last seizure began two weeks ago, and is characteristic of previous ones: a "drawing" mid-epigastric pain which comes on about two hours after each meal and continues up to next meal-time unless relieved in the interval by food, soda or brandy. Also awakens at night between 12 and 1 a. m. with the pain. This is usually relieved by soda, milk and crackers or external application of heat. During height of pain sour, watery, burning eructation, belching and feeling of distention. Rarely any radiation of pain. Tender to pressure. Appetite good, in fact abnormal. Loss of weight during a spell. During intervals free from pain and dyspepsia. Bowels fairly regular until recently. One year ago first and only hemorrhage; this was preceded by severe epigastric pain just before a noon meal, drank a cup of cold water to get relief, when vomited coffee-ground material. The next day passed a tarry stool. No shock. Usual weight, 168-175 pounds. Now 161 pounds. No urinary nor pulmonary symptoms. Physical examination: fairly well nourished and good color. Head, neck and chest objectively negative. Abdomen moderately scaphoid, resistant and tender mid-epigastrium and right upper quadrant. No peristaltic unrest. Percussion outline stomach fairly normal. Reflexes all present and normal. Moderate tenderness McBurney area.

Urinalysis: 650 c.c. (18 hours). Spec. Grav. 1.020. Acid, trace albumin. Few hyaline casts. Maximum arterial pressure, 145 mm.

Gastric analysis: filtrate 160 c.c.—very sour—food bits; total acidity, 100; free Hcl. 100; trace altered blood. Exam. stool (tr. Guaiac test) positive.

Diagnosis: duodenal ulcer. Chr. appendicitis. Laparotomy Sept. 2, 1912 (W. J. Mayo). "Large, thick duodenal ulcer, involving the anterior wall an inch or more in extent. Appendix showed recent peritonitis and contained fecal stones." Gastro-enterostomy. Appendectomy.

2. *Gastric Ulcer*.—A differential diagnosis between gastric and duodenal ulcer is often difficult and sometimes impossible. The majority of gastric ulcers are situated in the *pars pylorica* and closely simulate duodenal ulcer. That which has been said with reference to duodenal ulcer holds equally good for all ulcers situated in the pyloric end of the stomach. If the ulcer be in the lesser curvature the pain and the tender points may be in the region of the left costal margin. Pain and tenderness accompanying duodenal is usually to the right and above the navel, or is mid-epigastric. The nearer the ulcer approaches the cardia the earlier does pain come on after taking food. Test meals show the acidity rela-

tively higher in duodenal ulcer. If bleeding occurs, ulcer situated in the stomach causes hematemesis largely. Although bleeding from duodenal ulcer occurs mainly by the bowel, hemorrhage from the mouth is relatively frequent. Three to 4 per cent. of all duodenal ulcers extend to and involve the pylorus, a condition which often explains a double hemorrhage. Fluoroscopy in doubtful cases is often helpful in locating the site of the lesion. Radiography plate of the stomach following ordinary administration of bismuth is invaluable in diagnosis of hour-glass contractions.

3. *Gall-Bladder*.—Chronic gall-bladder disease in many cases is accompanied by a dyspeptic syndrome closely simulating the symptoms in chronic ulcer of the stomach or duodenum. This is the most frequent source of error in the diagnosis of painful upper abdominal lesions. The typical hepatic colic with sudden onset of pain in the epigastrium, diaphragmatic bursting feeling, pain radiating into the back, sudden cessation with or without jaundice supervening should not be difficult to recognize. Yet a duodenal ulcer having an early tendency to perforate may have almost similar symptoms. On the other hand, the chronically diseased gall-bladder with impacted stone perhaps, ulceration and adhesion, in which no jaundice appears, and the gastric symptoms such as gas, vomiting, burning distress, sour eructation, impaired appetite and dilatation predominate in which the pain is moderate and follows food, will often be diagnosed as ulcer.

4. *Appendiceal Dyspepsia*.—Appendiceal disease of the acute type should not offer great diagnostic difficulty. Often a vague dyspepsia may precede for some time an acute localizing seizure. In a certain percentage of chronic recurrent cases we have an associated dyspepsia often simulating gastric disease. This is in all probability due to reflex secretory and motor disturbances in the stomach. In this type there are distinct prolonged attacks. Pain is not referred to McBurney's point, and often no appendiceal tenderness can be elicited. There may be no symptoms that accompany the usual attack of appendicitis except those directly referred to the stomach. The pain may be directly reflex, may be due to the pyloric spasm or to a gastritis owing to chronic hypersecretion. At times, however, during the course of the disease, McBurney tenderness or a history of subjective pain in the right iliac fossa may be elicited. As a rule there is not the regularity of onset of pain after food, the periodicity of attack which characterizes gastric ulcer. In appendiceal disease food often causes immediate distress, rarely relieves unless hyperacidity is present. A continuous pain or rather a continuous distress which is epigastric or indefinitely abdominal is often present. Nausea, distress, flatulence and a feeling of distention

are symptoms far more common in association with chronic appendix than with chronic peptic ulcer or disease of the gall-bladder.

5. *Cancer of the Stomach*.—Cancer of the stomach, another frequent surgical condition, will be mentioned but briefly. This disease often follows on latent or active ulcer of the stomach. In a recent study of several hundred cases which were resected in the Mayo Clinic, 60 per cent. gave a history of previous ulcer. This was corroborated by pathologic evidence in which a series (189 cases) showed microscopic proof of preexisting ulceration in 67 per cent. Cancer should always be excluded in a middle-aged or elderly patient who, having had no previous dyspepsia, now complains of dyspepsia with or without pain and distress, perhaps vague at first and associated with loss of weight and strength. In proved or strongly suspicious cases of carcinoma of the stomach or any other part of the anatomy early surgery offers the only hope of cure or amelioration.

6. *Other Types of Disease Which May Be Associated with Dyspepsia*.—(a) When syphilis attacks the stomach or liver it may clearly simulate ulcer of the stomach or gall-stones, and when quite advanced the pain, cachexia and vomiting may lead to a strong suspicion of cancer. The vomiting of the gastric crisis of tabes is misleading; however, the attacks are peculiarly sudden, the vomiting is irregular, straining and prolonged, often following the introduction of food, but occurs if total abstinence is practiced. Perhaps, little pain, not often sour stomach, no hunger pain, no food or other characteristics are present. The attacks cease as abruptly as they begin, leaving no signs of trouble. In addition there may be a history of specific infection, or the Wassermann reaction may be positive. Patients may complain of lightning pains, ataxia, bladder troubles or other symptoms suggesting tabes. Examination of the eye and patellar reflexes is most important. Specific treatment often assists in clearing up the diagnosis. It should be remembered that syphilitic ulcers of the stomach are a frequent factor in the production of an hour-glass deformity of that organ. (b) Many patients with early or chronic pulmonary tuberculosis present themselves with a gastric complaint only, fearing ulcer or cancer. Anorexia, distress after eating, often pain, vomiting and cachexia are present; hydrochloric acid is absent. Tuberculosis of the intestines often gives dyspeptic symptoms. Careful examination of the chest may reveal a focus or area of involvement of the lung, an irregular fever, cough, bacilli or other tuberculous foci may be determined. (c) Bright's disease often confused with gastric complications, loss of appetite, emaciation, anemia, dislike for food, vomiting, food

distress and gastric analyses, often closely follows the ulcer or cancer type of stomach trouble. Routine examination of a complete twenty-four-hour specimen of urine should be made. The total amount, specific gravity, the character of the casts are most important. A history of increased frequency or suppression, the previous history of infection, together with the condition of the heart, blood-vessels, retinae and arterial pressure will clear up the diagnosis. (d) Pernicious anemia is often most difficult to differentiate from ulcer and especially cancer. Unless the complete blood-analysis is positive one is often at a loss in deciding. Gastric analysis suggests cancer. There may be lack of appetite in both, distress after food, nausea, gas and blood. Also constipation and loss in weight. In cancer and anemia there may be pain, shortness of breath and palpitation on exertion, which conditions are more marked in anemia than in cancer. We do not usually find the pain and vomiting of cancer. There is less emaciation in anemia, the skin is more apt to be a lemon color than colorless; there is an "oilier" feel present and a slight general edema is usually found. The skin of cancer is dry and often of a grayish hue. The gastric analysis in anemia is misleading. Tumor is never present in this disease. The characteristic wave of improvement and relapse may mark the clinical course. A differential diagnosis may be established if definite improvement follows the administration of iron and arsenic together with rest, enemas, proper feeding, etc.

The Functional Dyspepsias.—This group forms a very considerable percentage of the cases observed in the Mayo Clinic. They are viewed from the standpoint of probable non-surgical cases of dyspepsia. Grossly, they may be separated from the surgical types of (a) usually no definite pain association; (b) very little or no nutritional disturbance, often steady gain in weight in spite of prolonged or marked dyspeptic syndrome; (c) complaint more often daily or constant, not periodic, which is usually a characteristic of the uncomplicated surgical type; (d) a large percentage have a nervous, functional basis and thus are accompanied by or follow nervous or neurotic manifestations. The absence of sufficient distress or pain to awaken the patient at night is often noted in these cases.

Fenwick's classification of these cases, which is appended, is comprehensive and practical:

1. Disorders of secretion: (a) hyperacidity or an increase of Hcl; (b) hypersecretion or continuous gastric secretion; (c) subacidity (achylia) or diminished gastric secretion.

2. Disorders of mobility: myasthenia gastrica (atonic dyspepsia) or enfeeblement of the muscular coat of the stomach.

3. Disorders of the nervous mechanism: (a) hyperesthesia of the stomach; (b) neurasthenia gastrica (nervous dyspepsia); (c) nervous eructation and regurgitation.

4. Dyspepsia due to inflammation of the stomach: (a) acute gastritis; (b) chronic gastritis; (c) atrophic gastritis.

5. Dyspepsia dependent on displacements of the stomach. Gastropothesis.

These cases often present great problems to the diagnostician. They may possess characteristics of both motor and secretory disturbances. A functional dyspepsia may complicate a surgical lesion. Cases with early, mild, indefinite, gastric disturbances dependent on gall-bladder or appendiceal disease are often included in this group until subsequent, localizing symptoms explain the probable etiology. Cases of functional hyperacidity may simulate ulcer. Test-meal analyses of hyperacid cases and chronic catarrh are similar to those found in gastric or duodenal ulcer and cancer respectively. A mixed neurosis affecting both sensation and mobility, and accompanied by symptoms of general neurasthenia, constitutes the obscure and complex disorder known as neurasthenia gastrica or nervous dyspepsia. Alterations in the position of the stomach whether congenital or acquired oppose a mechanical obstacle to the propulsion of food into the duodenum and by causing secondary perversions of the other gastric functions may give rise to a form of dyspepsia which can only be distinguished from gastric neurasthenia by careful examination.

CONCLUSIONS

The essential factors in the proper diagnosis of gastric and allied conditions which cause dyspepsia are:

1. Careful history taking.
2. Routine thorough physical examination.
3. A routine test-meal examination.
4. If necessary, a skiagraph series or fluoroscopic study of the gastroduodenal area.
5. A correct interpretation of all the data at hand.
6. The general attitude of the patient, his general appearance, etc., should be observed. The careful physician should inquire into the daily habits, social environment, manner of eating, nature of food, condition of teeth, etc. He should correct the diet, urge proper mastication and institute natural, therapeutic or surgical measures as the case may be.

REFERENCES

- Collected papers by the staff of St. Mary's Hospital, Mayo Clinic, 1910 and 1911.
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IMMUNITY *

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In presenting this subject to this society I make no pretense as an original thinker or as an investigator in this field. Indeed, the processes which I shall here discuss are too complicated for solution by the busy practitioner, and we find it necessary to spend some hours in study to keep in hand the facts which are discovered by our brothers of the laboratories. The study of this question is made much easier if we first master a few general principles. The following paragraphs are, therefore, an elementary review of this subject rather than anything new, and in them I will quote *ad libitum* from the words and works of others.

Literally the word immunity means freedom from disease, but in the light of modern knowledge the term has come to mean resistance to disease, for with very few exceptions immunity is only relative. This is well illustrated by the hedge hog which does not react at all to serpents venom in ordinary dosage, but dies as do other animals when the dose is largely multiplied, or by the fact that it requires 200,000 times as much tetanus toxin per ounce of weight to kill a chicken as it does a horse.

That there is an intrinsic resistance to disease, bacterial and other poisons which attack us continually, no one will deny; for without such a resistance all higher forms of life would have perished long ago, or never would have been at all.

This resistance or immunity has been recognized by medical men of all time. In the mind of the great Hippocrates himself no other fact was more firmly fixed, and we, his modern disciples, know well that we have no specific of avail in the "expectant treatment" which in itself is an admission that the common end of most infections is the development of an immunity; that is, provided the infectious process is not so violent or severe as to destroy the mechanism of self-healing and the sufferer.

Of all the phenomena of disease, none are so complicated as those which have to do with the ability of the organism to defend itself against injurious agents. This defense may exist normally in sufficient strength to protect; or as the augmentation of a power which is present but in slight degree when the organism is unattacked. The first condition is known as natural immunity; the second, as acquired immunity. Immunity may depend on chemical non-affinity of the cell for the poison or on certain substances in the body fluids which combat the poison, or on phagocytosis. The former is histogenic or

from the cells, the latter is hematogenic (from the blood). Again, immunity is divided into two classes: active, coming from within, depending wholly on the resources of the organism; passive, depending on vicariously prepared substances introduced into the body. Under this last head comes all our sera. Natural immunity is, therefore, active immunity. It may depend on active phagocytosis, as in the case of frogs infected with anthrax, or on substances in the body juices which are destructive to the invaders. Acquired immunity is seen as either active or passive, and generally depends on powers which are always, though sometimes but feebly, present.

Thus, if an animal be injected with one of the proteid poisons in dosage just short of lethal, it reacts in a positive manner, but when recovered will not react again in the same degree to like dosage. A tolerance or immunity has been set up.

Or again, if an animal be inoculated with an attenuated culture of black-leg virus, it becomes ill but when recovered will not react to ever so virulent a strain of this germ in any marked degree. This same condition is noted in the human after some of the acute infectious diseases, such as measles, whooping-cough, scarlet fever and yellow fever. It is thus clear that because the germ of these diseases has lived within the body that the body is enabled to successfully counteract it in the future.

An acquired immunity (that is, that given by the use of antitoxins) is rarely but transient, for the vicarious substances are not created by the organism and having no part in it are soon excreted.

The actual beginning of the study of the minute processes of infectious reactions began when in 1888 Raux and Zersin discovered in the blood of animals infected with diphtheria, diphtheric toxin. In 1890, only two years later, Behring discovered in like investigations, antitoxin; the curative and protective powers of which were recognized and described by him, and "thus an innate power of an animal organism to develop in a marvelous manner its own resources was recognized and turned to common good."

It was then thought it would be an easy matter to dispose of all infections by the administration of a properly prepared antitoxin, but this hope was dashed to pieces by the discovery of the fact that not all pathogenic organisms liberate a soluble toxin, but that many toxins were held fast in the cell body of the invading germ. About this time it was discovered that some of the cases of natural immunity are due to the fact that the liberated toxins are taken up by cells of relatively little importance to the organism. This fact explains why the alligator does not react to tetanus toxin but yet forms an antitoxin.

*Read at meeting of the Fourteenth District Medical Society, Marshall, Mo., Oct. 17, 1912.

Toxins which remain in the cell body are known as endotoxins. It has been discovered that in immunity against bacteria of this class the body fluids show the power to dissolve them. This process is known as lysis and the complex proteid substance in the sera on which this action depends is known as a lysin. Thus, the serum of white rats readily dissolves the anthrax bacillus.

Naturally enough, the question was raised as to the source of the antitoxins and other antibodies which are naturally present or which appear under proper stimulation, but no solution of this vexing question was offered worthy of note until Ehrlich produced his "side-chain theory" of immunity. All bacterial and other poisons which attacking an organism cause it to form antibodies, he called antigens.

We will endeavor to show his theory by the study of it applied to the earliest known and most simple of the antigens, diphtheritic toxin. Ehrlich assumed that molecule of toxin to be harmful must have molecular union with the organism, and that such a chemical union takes place not with the substances as a whole, but between certain parts of differentiated matter possessed by each, and that these differentiated parts possess an affinity for, or fit into each other as does a key into a lock. When the key fits, when there is an affinity, union takes place; when no affinity exists no union takes place. Those parts of the molecule differentiated to form union he designates as side chains and conceives them to act as the hypothetical side chain of organic chemistry. That part of the toxic molecule which takes part in the union is known as the haptophore, and the corresponding part of the little molecule he calls a receptor.

Cellular nutrition is supposed to go on continuously through the combination of receptors and haptophores of suitable molecules of food-stuff. Now certain toxic or other agents are supposed to have haptophores with affinities for the receptors of cell protoplasm and when these attach the other group of the toxic molecule (toxiphoric group) acts. When such a union between toxin and tissue is had, two possibilities occur; the toxiphoric group may act on the cellular protoplasm and destroy it or, by preventing union with food particles, may starve it; but if the cell is not overcome by having its receptors thus occupied by strange haptophores then there occurs the formation of new receptors and if the stimulation be oft repeated innumerable number of receptors may be created and liberated into the blood-stream. These free-cell receptors are the antitoxin and in this free state readily combine with the haptophores of the toxic molecule and prevent its further union or action. This in short is "Ehrlich's theory"; it was promulgated to explain the action of diphtheria toxin and the formation of antitoxin, but it has

proven itself useful in explaining the action of all antigens and their antibodies.

Many other antigens have been recognized and studied: ferments, precipitogens, agglutogens, opsinogens, lysogens, etc. The formation of their antibodies is thought to be similar to the one we have described, though their action is different.

We have spoken of dissolution of bacteria by body fluids and hinted, at the formation of lysins. This is an important factor in immunity and it is likely that to it, and to the neutralization of toxin by antitoxin—and to the phagocytosis discovered by Metchnikoff, that we owe most of our immunity both natural and acquired—both active and passive. It would not be well to leave this subject without discussing more in detail, phagocytosis and, in this connection, opsonins and their action.

With the process of phagocytosis we are all familiar, but in recent years Wright and Douglas have demonstrated that phagocytosis itself depended on a substance floating free in the blood-serum by which the bacteria are changed before they are taken up by the white blood-cells, and that without the action of this substance no phagocytosis occurs. This chemical-proteid-preparer of things to be devoured, they called opsonin, which means in the Greek, to prepare food for, and this term, for the lack of a better, will persist.

The origin of the opsonins is supposed to be analogous to the other antibodies. Opsonins are specific in their action; they vary in amount and may be increased by the injection into the body of sterile cultures of germs. This fact has given rise to the use of bacterins.

It is likely that to no single one of the above processes is due our escape from any given infection, but that all these and many more play a part is almost certain; sometimes one predominates, sometimes another. We have looked but hurriedly at many complex phenomena; let us review them by way of closing.

Immunity is the resistance to deleterious substances, no matter what their nature, whether bacteria, chemical or what not. Immunity is either natural or acquired; natural immunity is common to a species and may depend on chemical non-affinity, phagocytosis, antitoxin or lysis, and in most cases depend on all or several of these factors. Acquired immunity is gained by the individual and may depend on any of the processes just mentioned and on the formation of antibodies.

The protective substances may be elaborated by the organism itself or be vicariously prepared; that is, acquired immunity may be either active or passive.

The substances elaborated by the organism itself do not persist after the subsidence of the stimulation, but in most cases are very rapidly replaced in cases of reinoculation. The vica-

riously prepared substances are soon eliminated and must be again furnished when reinoculation occurs.

Lct me close as I began: This is but an elementary review of this subject and I hope that if the paper will do nothing more it will stimulate study in this field; a broad understanding of which is necessary to the intelligent use of the serums and bacterins. Much literature on the subject can easily be found as it has become very voluminous.

A SELF-INVAGINATING HEMOSTATIC STITCH FOR THE APPENDIX STUMP

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The following technic for the treatment of the stump of the appendix in appendectomy has been used by the writer in 530 cases during the past five years without an untoward accident. There has been no case of hemorrhage and no fecal fistula. Properly speaking, the term invagination of the appendix stump is a misnomer, as the procedure contemplates cutting off the appendix flush with the cecum, and the invagination is simply of the edges of a straight cut in the cecum. The advantages claimed for the method are, first, the ease with which it may be performed; the simplicity consists in the fact that when the two ends of the suture are drawn taut the edges of the wound are invaginated and thus the petty annoyance that often accompanies the invagination of the appendix stump is obviated; second, the fact that the stitch is hemostatic, as is the ordinary gastro-enterostomy stitch; and third, the rapidity with which the maneuver may be executed. The figures are almost self-explanatory. The steps are as follows:

1. The meso-appendix is ligated as usual.
2. The junction of the appendix and caput coli is caught in a curved clamp, the convexity being toward the bowel; another curved clamp is fastened just above, and the appendix is cut close against the lower clamp. (This step does not differ from the same step in any appendectomy, except that the stump is cut as close as possible to the cecum.)

3. A Lembert suture of linen thread is introduced by means of a straight needle just beneath the clamp, beginning at the junction of the appendix and meso-appendix, and passing obliquely it emerges at a point about 1 centimeter from its entrance. (Fig. 1, A to B. The figure is compelled to magnify the distance between all the stitches for the sake of clearness.) The thread is carried across the clamp and a stitch is taken parallel with the clamp (Fig 1, C, D). It is again carried across the clamp and a corresponding suture taken on the opposite side

(Fig. 1, E, F). Stitches G, H, I, J and K are then taken (see Fig. 1). The last stitch (Fig 1, L, M) is passed beneath the clamp again. An important fact of the invagination is to bring the points M and J close to the same point in the bowel.

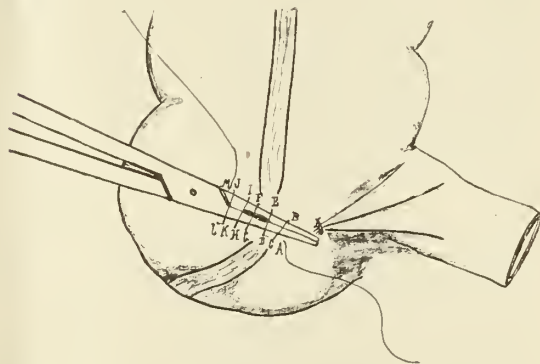


Figure 1

4. The end of the suture with the needle (II) is taken in the left hand, the handle of the clamp is taken in the right hand, the assistant pulls on the other end of the suture (I), as the clamp is gently released and the jaws withdrawn from under the loops. Invagination is accomplished more perfectly by pulling on the meso-appendix end of the thread. The curved clamp is used because

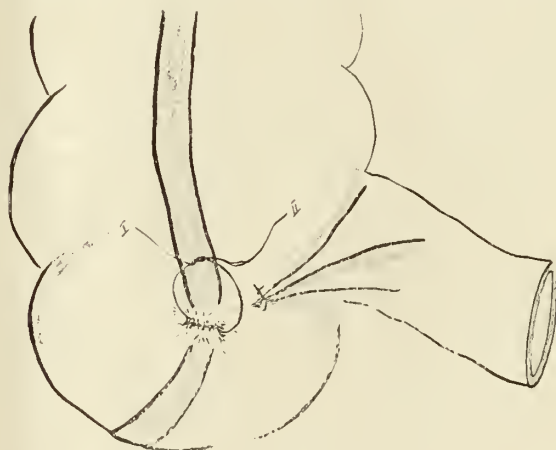


Figure 2

there is no difficulty in keeping the loops of the thread over the clamp until it is ready to be taken off. By using a rather heavy clamp the tissues between the jaws are so crushed together that no accident has been experienced by having the bowel contents escape before the ligature is drawn taut.

5. The two ends of the thread (I and II) are brought over and tied (Fig. 2).

6. After tying and before cutting, a loop is made under the appendicular artery and again tied. It is seldom necessary to reinforce the stump by other superimposed stitches. This

suture properly placed is hemostatic. My colleague, Dr. A. E. Hertzler, in trying the method experienced some difficulty at first in attempting to invaginate the stump. His difficulty was that he did not place his clamp at the junction of the base of the appendix with the caput coli, and thereby left too long a stump to be invaginated by this stitch. The two ends of the linen thread should simply be drawn taut, and this maneuver will invaginate the stump and bring two clean serous surfaces of bowel together over it.

Rialto Building.

A PLEA IN BEHALF OF THE UNBORN *

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American aristocracy should have reached its zenith before arriving at the point of human sacrifice, but it did not. Unborn babes of society leaders continue with increasing rapidity to fall victims of the cruel fate of social martyrdom. Never before in all past ages has there been such a ruthless overthrow of helpless, unborn human beings as is going on at the present time, and all for mere social promotion. All sizes and all ages, from the dependent babe at birth down to the infinitesimal embryo of the earliest conception are to be found in the human scrapheap of aristocracy.

I should pause at this point to offer public apology for indulging in a subject so shocking in its nature to the sensitive and sympathetic, but the unborn generation must enforce its interpretation and its protest in some telling manner against such criminal abuse as is being heaped on it and there is no better way than through human agencies and the instrumentality of philanthropic brotherhood. Those who have successfully and thankfully passed through the full period of gestation and borne according to Nature's law of creation, must lend a helping hand in obviating the growing tendency to blight the prospect of future generations.

To become the father of many children, with most men means more work, more care and self-denial of some things that would otherwise go toward making life a stream of continued happiness. To become a mother, in the minds of society women, is to become a burden-bearer. To her child-bearing and child-rearing is a menace to the full enjoyment of social life and no effort is spared on her part in refuting Nature in her noble purpose of creating man.

"Race suicide," due to preventive measures in conception and to the infamous practice of foeticide has become an international topic of great

magnitude. The American people are strangely affected by social fanaticism and cruelly strangle American posterity in its incipency with a dominating hand of despotism. The higher educated and more civilized the race the more augmented is this woeful practice as sin and selfishness culminate insidiously in the hearts of many from such environments.

If the public knew all the secrets intrusted to physicians' keeping pertaining to race regulation, it would be an appalling revelation. Lift the veil of secrecy from the portals of the profession as it were, and you disclose some of the darkest deeds of human depravity. But let us not lose sight of the fact that woman is not alone responsible for this act of human degradation, but that husbands willingly yield to the popular practice of race extinction as do the most fastidious fair sex of the famous 400. It is humiliating to no little degree to have to accept a surprising share of this loathsome crime to our own profession, but justice rightly demands that we incriminate all who are equally guilty of the charge. There is no other excuse for a perverted criminal wretch under the guise of doctor, who stoops so low as to snuff out the divine spark of human life in its primitive origin than a craving for the filthy pelf that falls into his coffer. A physician thus given to such unprofessional procedure, is looked on by the regular, legitimate members of the profession as a fiend unworthy of the title of M.D., and should be banished from the association of all good men. If all physicians who are guilty of this heinous crime were to receive just punishment for their acts, more and larger penitentiaries would have to be erected to accommodate the miserable throng.

Reverting to a more primitive age, I invite you to look, in your mind, at a picture which we shall call mental illustration No. 1, of this subject. Behold if you will, a loving mother in an humble home, sitting, rocking with a well-trained foot, a babe in an old-time box cradle softly singing while the sound of the board rockers marked time to the tune on the uncarpeted floor and to the work of darning socks, patching or doing some other useful domestic turn long since relegated to the lost arts by women of wealth and modern domesticity. Costly furniture, rich decorations do not adorn the apartments but an abundance of love and happiness reigns supreme instead. About the room are strewn in grand profusion, well-worn toys of modest type. All about the premises are to be heard gleeful voices of happy children as they romp and play in a childish way. Everything round about is indicative of growing activity, life, love and happiness. If perchance it be at eventide and the scene of our plot in the country, the old family dog will be seen sitting at the yard gate, anxiously but patiently, wait-

*Read by title in the Medical Section of the Missouri State Medical Association, at the Fifty-Fifth Annual Meeting held at Sedalia, May 21-23, 1912.

ing and watching down the road that leads to the little white schoolhouse in the valley, for the home-coming of the larger brothers and sisters. Later on the tired but happy father returns from his work in the field, the good wife and mother puts aside her sewing and while baby is cooing and playing in its comfortable quarters, hurriedly prepares the evening meal and when all is ready, with an unbroken row of happy faces on either side of the table, the proud father lifts his voice to heaven and in fervent prayer returns thanks to the All-Wise Creator for the blessings bestowed on him and his happy household. This is a brief representation of a well regulated American family of long ago and a fair likeness of the homes of our nation. It was in such homes that the greatest men of our country were born, reared and rocked in the cradle of crude construction.

I would rather hear the cry of a healthy baby and the melody of a sweet lullaby sung by a devoted mother than to hear the peal of a piano accompanying an operatic voice of a society lady, flowing through the costly-curtained windows of a childless mansion. The former presents living evidence of reproduction of like happiness through the maturity of the child, while the latter manifests but a limited life of worldly pleasures that fade with age like the beautiful summer rose, when paint and powder no longer serve in covering up the landmarks of time and the proud individual sooner or later, succumbs to the inevitable without leaving one trace of her individuality behind. It is Nature's essential aim to reproduce all living things, both animal and vegetable and man should live more loyal to his Maker than to dodge the sublime duty imposed on him. Man is the only being known to hinder and to limit reproduction. The beasts of the fields love to rear their young; even the savage has a keener desire for offspring than his civilized brother because he lives closer to the immutable laws of Nature.

The strenuous rules of the "smart set" have so firmly barred the door of the social sanctum against the presence of children, as to make their absence extremely conspicuous. This being true, the world must look to the poor and the middle classes, for perpetuating the human species. The rich buy immunity at any cost and at all hazards. The less-favored financially are forced to abide by the natural consequences of their poverty, allowing Nature to have full sway in the rôle of gestation by being unable to purchase the sinful necessities to obviate the fulfilment of the God-given command to multiply and replenish the earth. Many who indulge in this dangerous practice of sacrificing incipient humanity on the cruel altar of aristocracy, forfeit their own lives as well, but even this does not deter the contemplation of others.

Go with me to mental illustration No. 2, the mansion of the well-to-do. On entering the portals of this society home void of children, when the doors are closed to entertainments and social functions, we do not meet with vital conditions here as in the former home. There is no sound of children's voices emanating from the various apartments to greet the ear, and after the noise and confusion of an evening's revelry has died away, everything is still and lifeless, save the squacking of a parrot or the whimpering of a poodle in some favored nook of the mansion. As we enter the main sanctum of such a home with its costly furnishings unmarred by the finger-touch of children, we feel a sensation similar to that felt when ushered into a death chamber and intuitively tread lightly on the velvet-covered floors and heave a sigh of relief when we have departed therefrom. Such is a home without children; a home without true happiness; a home where domestic pleasure cannot long abide in all its fulness; where fascination for society has obtained all desire for the real soul-inspiring love of offspring. Here usually dwells a pair of human beings, male and female, living a life of selfishness, participating in all the choice blessings placed at man's command and giving nothing in return, not even one germ of human life sown to further the race through ages to come, but living a life of contentment in their selfish surroundings with a pug or a parrot to take the place of children. They must possess something on which to lavish love, Nature demands it. If they will not allow it to be a child, then it must be a poodle, pug or parrot. What a perverted nature in woman that prefers to kiss an up-turned nose of a pug dog rather than to kiss a dimpled-cheeked, rosy-lipped baby, with perfumed breath as sweet as the spring-time zephyr of a new-born day.

This article has no reference to unfortunate women who, through disease or otherwise, are unable to perform the function of mother, for such are to be pitied and not censured. No woman living under the bonds of matrimony has fully discharged her whole duty, everything being equal, until she has filled the office of mother. Deplorable as it is true, aristocracy looks on child-bearing as a trait of gross ignorance and should not be indulged in except by the vulgar and very poor. Again, some women believe that rearing children renders them prematurely old and shortens their lives materially. This is not true. Reproduction never shortened the life of any mother, but added to her longevity instead.

If by chance or accident a child is born to an aristocratic mother, as soon as she has recovered from her lying-in state, nine to one if she does not forsake it on the spot and put it in the hands of a wet nurse to be cared for that she may continue unhandicapped in her social affairs. I believe the crowding of the divorce courts of to-day

is due to the lack of compromising influence of children in the home. The strongest domestic tie in a home is the amalgamating power of children born to the union. Let the child fulfil a mission of blending youth with old age thereby neutralizing the senility of declining days of parents.

We have now arrived at the third and the last mental picture of an overactive society lady, figuratively casting her infant on the scrap-pile of aristocracy. She stands ever ready to shoo the stork from the door or to clip its wings while in flight, that its mission may come to naught. Millions of men are thus cut off from entering the world's happy domain—a waste of humanity too great to contemplate. Such being true, are we not as a nation entitled to the world's heartiest applause for all progressive and intellectual advancement made thus far, when we realize that the great fountain-head of America's population flows from the common people and the honorable poor? Surely there will be a time when the aristocratic rich will envy the humble household for the bountiful blessings bestowed on it for its fruitful propensities. Aristocracy would rather see this country infested with the riffraff of foreign nations than to submit to the reproductive laws of Nature in replenishing the death loss of our land.

It is far better to cultivate American blood on American fair soil than to invite and adopt sons and daughters of other countries. Human reciprocity between nations should be encouraged for the betterment of all nations participating therein, providing each nation is not made the dumping ground for the other.

So general has become the practice of preventing increased population among the civilized as to call forth the offering of premiums in certain localities for a more *prolife* life among the inhabitants. The Biblical command to multiply and replenish the earth was fervently followed by the American people until acquiring sufficient knowledge to enable them to defeat Nature in her most noble enactment.

The happy, smiling face of a sweet baby should strongly appeal to the heart of every married American woman, to never again, if guilty, refrain from that which characterizes true womanhood. The nature of woman has never changed and never will. The natural mother instinct that abounds in the breast of every female creature is just as strong in the heart of woman as that of any other being, but she has completely suppressed it. Suppression of love, then, is largely responsible for the noticeable decrease in population. Love for fashion and frivolity; for the ballroom and the theater; for the allurements of society; love for all the choice worldly pleasures are the prevailing reasons for existing circumstances pertaining to the great question of race extinction.

We ask in the name and the interest of the unborn what can be done to revive the flickering flame that once shone in the breast of woman with a fulgency that lighted up the future pathway for the present generation? When we, the present generation, have been quietly tucked away in our shroud for that last, long sleep, who will recruit the army by taking our places and fighting the battle of human existence to a faithful finish? The loyal sons and daughters of our own posterity. Who will furnish the recruits?

SPECIAL ARTICLE

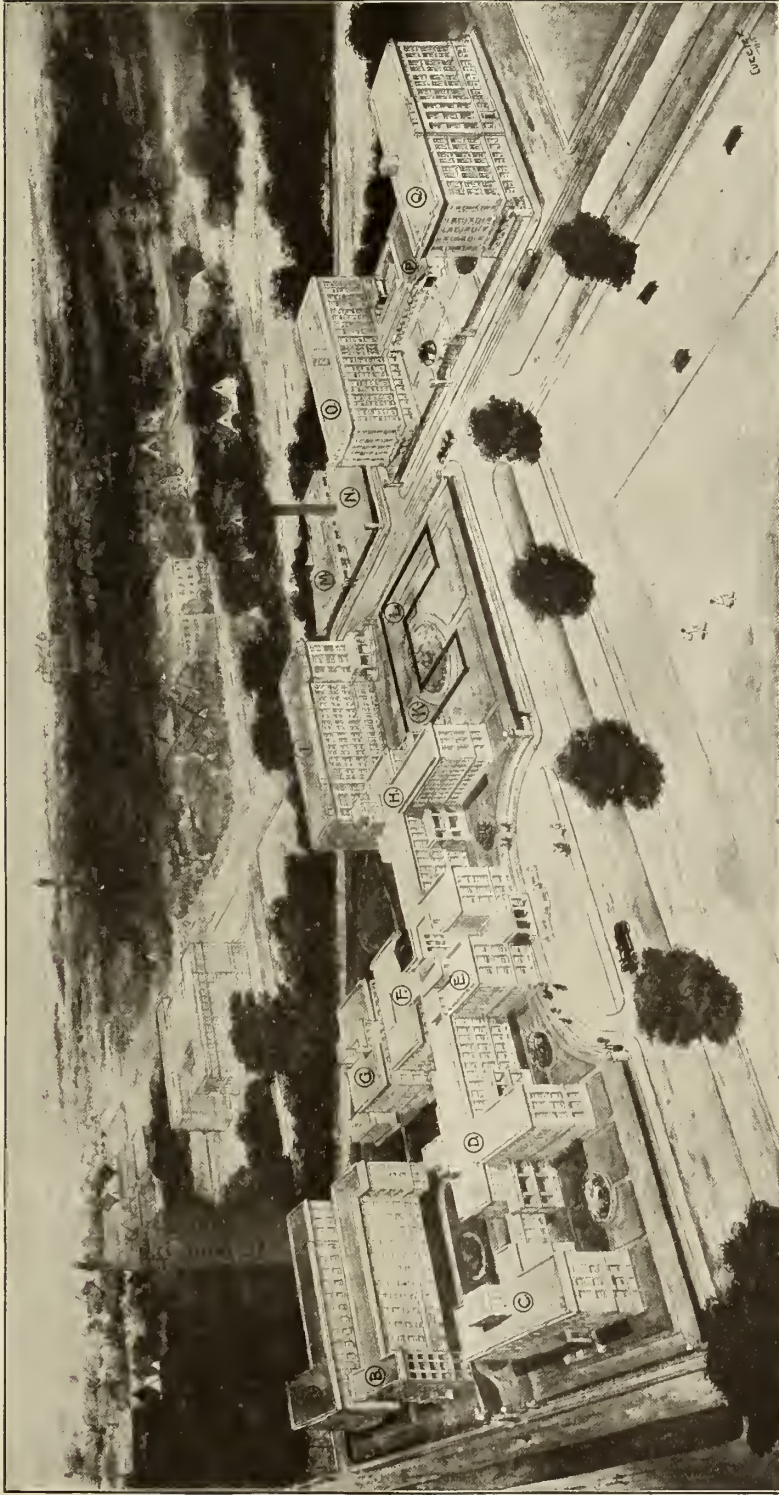
THE NEW MEDICAL SCHOOL BUILDINGS AND HOSPITALS OF WASHINGTON UNIVERSITY, ST. LOUIS*

From the illustration the friends of Washington University may form some conception of the magnitude of the buildings which will constitute the group of the Washington University medical laboratories, the Barnes Hospital, and the St. Louis Children's Hospital. The plans for all these buildings have been completed after great labor and approved, with the exception of the plans for the Nurses' Training School; all of them are now in course of erection.

The Barnes Hospital, under the auspices of the Methodist Episcopal Church, South, represents the most modern thoughts in hospital planning and up-to-date methods of construction. It is absolutely fireproof. The style of architecture may be called a modified and modernized Colonial. The floors are generally of marble, tile or battleship linoleum; wood has been sparingly used. For walls, marble, glass, enameled brick and tile have been freely used, not so much as decorative features but rather in places where sanitary reasons recommend their employment. The exterior walls are constructed with an impervious light-grey brick on all sides and trimmed with limestone. The cornices and copings are of limestone. The main entrance in the center of the south front admits into a spacious rotunda for visitors, lined with white marble, and containing a bronze bust of Mr. Barnes. On either side are the administrative offices, the trustees' rooms, offices of the medical director, rooms for visiting physicians and a medical library. The medical house staff is housed in the second and third stories of this central or administration building, which also contains a memorial chapel to the founder. Back, or north, of the administration building are the service buildings containing kitchens, dining rooms, cold storage rooms, bakery, butcher shop and laundry.

The extreme western building of the group is set aside for private patients of the class which

*From Washington University Record.



is able to pay full value for service received, where each patient may occupy a private room, or suite with private bath, and may have the advantage of special nurses. The two sick wards proper are located on either side of the administration building and much study has been devoted to their planning, the intension being to develop, or evolve, a happy compromise between the unwieldy and expensive one-story pavilion type and the usual building of many stories. Each of these sick wards consists of a wing projecting southwardly from the main corridor at right angles, having three superimposed stories, entirely cut off from one another, so that each story is really a small self-contained hospital, entirely separated from the story above or below it. From a sanitary point of view this arrangement is considered just as effective as the isolated one-story pavilion and infinitely superior from the standpoint of convenience and economy of administration. These wings are provided with porches on each floor of a capacity equal to about one-half the number of beds. Open-air wards may easily be introduced on the roof of each ward building. The initial capacity of the buildings now under construction is 220 beds with sufficient space reserved to almost double the capacity in the future.

Its association with Washington University Medical School will give to Barnes Hospital a prominent position as a hospital for medical research and for this reason more space is devoted to the advancement of medical and surgical practice than is usually found in a general hospital. Numerous class rooms, laboratories, lecture rooms and examination rooms are added, and all modern aids to the science of healing such as experimental metabolism, radiography, hydrotherapeutics and mechanotherapeutics are provided for by very complete departments for each branch. All the arrangements for scientific diagnosis and research work have, however, been so carefully studied that their introduction will not in any way interfere with general hospital routine or with the comfort of the patients. The operating ward occupies the entire north half of the third floor of the administration block and contains three operating rooms for the daily routine work and one surgical amphitheater for special operations. A private approach to the operating rooms is provided for the exclusive use of incoming patients so as to screen them from views of the routine work of this department. The Barnes Hospital will also maintain a well equipped emergency accident department, open day and night, and a nurses' training school will be built on the west front of Kingshighway Boulevard by an independent organization which is to supply the highest grade of service both to Barnes Hospital, the St. Louis Children's Hospital, also an independent organization, and to any future hospital addition to this, the most comprehensive and complete combination of in-

terests for the advancement of medical science in the West. This hospital, according to contract, is to be used freely by the medical staff of the university for instruction and research.

PATHOLOGICAL LABORATORY, CLINICAL LABORATORY AND DISPENSARY

The pathological laboratory, the clinical laboratory and the dispensary occupy a large building 232x60 feet situated at the northeast corner of the hospital lot. The building consists of a basement and four floors. The dispensary occupies the entire basement and first floor and contains rooms for the outpatient clinics of medicine, surgery and diseases of children occupying the first floor, for the clinics of diseases of the eye, nose and throat, ear, skin, genito-urinary diseases and orthopedic surgery in the basement. Patients enter the building from Euclid Avenue and are assigned by an officer whose room is near the entrance to the various clinics. The social service worker has an office nearby. Large waiting rooms for patients are provided on both floors of the dispensary. The clinics of medicine, surgery and children's diseases have examination rooms in series connected by private corridors. Each department has a laboratory and a class room for the instruction of students. Operating rooms have been provided for the clinics of surgery, genito-urinary diseases and orthopedic surgery.

The second floor of the building is occupied by the laboratory of medicine which is divided into biologic, bacteriologic and chemical sections. Occupying the eastern end of the floor is a large laboratory equipped for instruction in clinical microscopy and chemistry. There are smaller laboratories for instructors and for physicians and students engaged in research. There is a room for photography, for pathologic histology and a library.

The pathologic laboratory of the hospital and medical school consists of a mortuary and an autopsy room occupying an extension of the west end of the building at the level of the basement and first and second floors and of two floors devoted to teaching and investigation in pathology. The extension containing the autopsy room and mortuary is connected with the hospital by a corridor. It contains a chapel in which burial services may be held. The autopsy room is provided with an amphitheater and in immediate contact with it is a large room which will be used for the teaching of gross pathology. Near the autopsy room are small laboratories for bacteriology and a preparation room.

On the third floor of the building is a class laboratory for bacteriology and pathology. This laboratory consists of three rooms occupying the north side of the building, each equipped to seat class sections of twenty students. On the same floor is a group of rooms which will be used by those who are engaged under the supervision of

the department of pathology in the study of special pathology in relation to surgery or to the specialties represented in the dispensary connected with the hospital. On the two floors are rooms equipped for investigation in pathologic anatomy, and in chemical and physiologic pathology by instructors and students. There are rooms for technical work in histology, for the preparation of media, storerooms, a toolroom and a small assembly room for the pathologic staff. A lecture room seating approximately one hundred students and provided with projection apparatus is situated on the fourth floor in contact with the museum. The museum occupies a very large space at the eastern end of the building and is provided with a large gallery situated below the skylight. Here will be housed the museum of pathology used in the teaching of pathologic anatomy, medicine and surgery. On the roof of the building are quarters for animals; in contact with which there are rooms suitably equipped for experimental pathology. The building is provided with an elevator situated at the western end. The laboratories are provided with incubator rooms, cold storage, live steam and air under pressure. There are lockers for students in those parts of the building which are used for teaching.

THE NORTH BUILDING

The North Building on Euclid Avenue is of four stories, with basement and available attic and roof space. Within it will be housed the administrative offices of the medical school, the auditorium, the library and the departments of preventive medicine, experimental surgery and anatomy. The building is entered from Scott Avenue, and is connected with the South Building by corridors, and with the hospitals, clinical building and powerhouse by means of a wide passage beneath the street. A driveway entering the court at the rear provides for delivery of freight to receiving rooms on the basement floor. The outside dimensions of the North Building are approximately 209 feet from east to west by 56 feet from north to south, giving a floor area of 11,351 square feet for each story. Adding to this the basement and attic, the total floor space is approximately 52,000 square feet. On the first floor will be found the library, offices of the school and the auditorium. The latter occupies the east end of the building, and is reached by corridor leading from the main entrance and passing the faculty room and the offices of the dean, secretary and registrar. It will have a seating capacity for 600 persons, and is intended to be used for public lectures. The general medical library occupies the west half of the first floor, a location conveniently accessible to all departments of the school. The stack room, accommodating about 40,000 volumes, the rooms for cataloguer and librarian have been especially assembled for efficient service. A general reading room and three especially equipped smaller

study rooms complete the present plans for this department. Staircases and elevator shaft are in the main hall opposite the entrance.

On the second floor the space is equally divided between the departments of preventive medicine and surgery, the latter having here its laboratories for experimental study. Excepting the small suite of offices for administrative matters, the space is given over to laboratories and other rooms arranged and later to be equipped for the special work of this department. These include two operating rooms with adjoining preparation and sterilizing rooms grouped together in practical relationship one to the other. The furnishings, plumbing, scientific apparatus and details of artificial lighting have been planned with great care. Students will be received for class work in the large laboratory of experimental surgery, and an advanced worker in special fields will find his needs provided for in one of the several small laboratories. Some of these are reserved for instructors and other members of the staff. Among the most important provisions should be mentioned the technician's laboratory, and a room designed for animals under observation. The eastern half of the second floor has been arranged in adaptation to the wants of the department of preventive medicine. A bacteriological laboratory, class room and museum are designed for teaching purposes; two research laboratories and rooms for maintaining constant temperature and for cold storage, balance room and quarters for animals are planned to provide for the requirements of research in this department.

The department of anatomy occupies the whole of the third and fourth floors. On the third floor are three class laboratories arranged on the one side of the building for the teaching of histology and embryology. Each will accommodate from twenty to twenty-four students. Instructors' rooms adjoin the class laboratories. At the western end of this floor are the anatomical lecture room and small public museum, the aquarium and modeling room. A research laboratory equipped specially for microscopical methods, a photographic laboratory, drafting room, physical-chemical laboratory and technician's suite occupy the eastern half of the third floor. The arrangement of the fourth floor is adapted to the methods of gross anatomy. The western half is given over to the dissecting room, wash room and locker rooms. The eastern half of this floor is occupied by instructors' laboratories, a research laboratory equipped for the methods of gross anatomy; a seminar room, a technician's suite, and a room for centrifuges.

THE SOUTH LABORATORY BUILDING

The South Laboratory Building will be of the same size and exterior design as the North Building with which it is connected by a corridor, off of which open a lunch room, the book store, the telephone exchange, and rooms for janitors, and

for various purposes. It will be 56 feet wide, 209 feet long and four stories in height, giving a gross floor area of about 45,000 square feet. It will accommodate the Departments of Physiology, Pharmacology and Biological Chemistry. Almost the whole of the first floor will be devoted to instruction in Biological Chemistry. The west end of the building contains a large class laboratory with chemical tables, hoods, sinks and other facilities for sixty students. In the rear half of the first floor are planned the chemical lecture room with small adjoining rooms for the preparation of lecture demonstrations, a laboratory for students taking special courses, an instructors' laboratory and rooms arranged for certain chemical work in connection with the nutrition of hospital patients. The rear of the second floor, also occupied by Biological Chemistry, is planned chiefly for research and contains one large laboratory for advanced students and accessory rooms, a seminar room, and the office and laboratory of the head of the department and of one instructor. Pharmacology will occupy the west half of the second floor and a part of the third floor.

The third floor is to be used jointly by Physiology and Pharmacology, and is devoted almost entirely to class instruction. It is divided into two unit laboratories each accommodating thirty students, an issue room, a number of individual experiment rooms, rooms for special experiments requiring the use of kymographs, galvanometers and other instruments of precision, and a laboratory equipped for physiological optics. The students are provided with a tool room for their own work. In addition the floor contains an operating suite arranged for aseptic work.

The whole of the fourth floor will be used by Physiology. A seminar room and the lecture room with its preparation room are located here in close proximity to the store of apparatus and chemicals that must be used conjointly for demonstrations and research. On this floor is also located the shop of the medical school which will be under the supervision of the Department of Physiology. The remainder of the fourth floor is devoted to private laboratories for the staff and advanced workers, and also contains rooms for special investigation.

The Physiological Department has reserved space in the basement for a pier room where apparatus requiring special stability may be mounted, a research room adjoining this and an aquarium. Basement rooms are also provided outside the building proper for the storage of inflammable and fuming chemicals. The attic space extending over the whole of the building will be utilized for the assembling of the air ducts from the chemical hoods and for the electric fans operating the draught. A steam still and tin lined tanks for distilled water are also located here, block tin pipes running from the tanks to the basement with openings on each floor. In planning this building as in the case of the others in the group,

the effort has been made to provide both students and investigators with every modern facility for their work. The laboratory desks and tables are of special design, and the space allowed to each student is ample. Besides the usual gas and plumbing equipment of such buildings, the various laboratories will be supplied with compressed air, electric power, steam or electric water baths, electric current of different voltages and brine for the refrigerator rooms.

ST LOUIS CHILDREN'S HOSPITAL

The St. Louis Children's Hospital will be placed on the same tract as the Barnes Hospital, immediately northwest of it, facing south, having Forest Park on two sides of it. It will be built of grey brick and will harmonize in color and design with the other buildings. The hospital will have three sections: the general hospital at one end, the auditorium and other rooms in the center, and the contagious ward at the other end.

The part of the building devoted to the general hospital work will be approximately 88 by 88 feet. It will be five stories high, providing for the admittance unit and offices on the ground floor, general medicine on the second, infants on the third, general and orthopedic surgery on the fourth, laboratories, director's suite, and rooms for the residents and interns on the fifth. In this part of the Hospital there will be one hundred beds.

At the opposite end of the Hospital will be the building for contagious diseases, 88 by 45 feet; it will have a basement and three floors, and will contain forty beds. The basement will be used for storage rooms. One of the three floors will be for diphtheria patients, one for scarlet fever, and the other for measles. Each of these floors will be entirely separate from the others, the elevators and stairs being on the outside.

Between the general hospital and the contagious building there will be an auditorium two stories high, connected with each of the other buildings along the rear line. At the rear of the auditorium on the first floor will be the autopsy room, and the sterilizing and linen rooms. On the second floor will be private rooms.

There will be no operating room in this Hospital, and no kitchen or general dining rooms. The operating rooms and the dining rooms of the Barnes Hospital will be used, and the food for the patients in the Children's Hospital will be furnished from the Barnes Hospital kitchen.

A valuable adjunct to the St. Louis Children's Hospital will be the Convalescent Home, located on the Missouri Pacific Railway, one and one-half miles from Valley Park, overlooking the Meramec River. The trustees of the hospital have there one hundred and twenty-five acres, on which there is a house approximately 75 by 100 feet. This home will increase the efficiency of the Children's Hospital, and will doubtless greatly promote the recovery of the patients.

THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

APRIL, 1913

EDITORIALS

THE FIFTY-SIXTH ANNUAL MEETING, ST. LOUIS, MAY 13, 14, 15

The St. Louis Medical Society is making preparation to entertain the annual session of the Association which convenes May 13, 14, 15. On another page we publish the program as arranged by the program committee. Full details of the meeting will be published in the May issue. The sessions will be held in the auditorium of the St. Louis Medical Society and a hall adjoining. The program committee, in accordance with instructions from the house of delegates of the last annual session, is preparing to give more time to meetings in general session and less time to sections. The house of delegates will begin its session Tuesday morning, May 13, and continue in session all day Tuesday, so as to dispose of the business affairs of the association and permit its members to enjoy attendance at the scientific sessions. Delegates are urged to be on hand promptly Tuesday morning so that the deliberations of the house may be facilitated and dispatched without delay. Those societies which have not yet elected delegates should do so at once and the name of the delegate and alternate forwarded to the state secretary.

ELECT YOUR DELEGATES

The attention of county society secretaries is directed to the necessity of electing delegates to the annual meeting of the state association. Every component society should be represented in the house of delegates at every annual session and the delegate should be required to make a report of the proceedings at the next regular session of the county society.

At the St. Louis session several questions will come up for discussion, touching the continued usefulness and influence of the association and its component societies, hence it is important that delegates be chosen who will not fail to be present and give their attention to the business affairs of the organization. Each society should elect a delegate and an alternate. Credentials will be sent county secretaries about May 1, and these

should be properly indorsed and sent to the official representative.

A number of societies have not yet elected their delegates and alternates. The secretaries of these societies are urged to call a meeting of their officers or of the society at once for the purpose of choosing the representative to the annual session, and then immediately forward his name to the state secretary.

The following societies have not yet elected their delegates: Barry, Boone, Carter-Shannon, Cass, Clark, Cole, Crawford, Dekalb, Dent, Dunklin, Iron, Jackson, Jasper, Jefferson, Johnson, Laclede, Lafayette, Lawrence-Stone, Lewis, Marion, Monroe, Montgomery, New Madrid, Newton, Pemiscot, Platte, Putnam, Randolph, Ray, Reynolds, Saline, St. Charles, St. Francois, Scott, Stoddard, Sullivan, Wayne, Texas.

SHALL THE MEMBERS OF THE STATE ASSOCIATION BE MEMBERS IPSO FACTO OF THE AMERICAN MED- ICAL ASSOCIATION?

On another page we publish excerpts from the address delivered by Dr. Simmons at the meeting of the state secretaries held in Chicago last fall, advocating a change in designating members of the American Medical Association so that all members of constituent state associations shall by virtue of such state membership become members of the American Medical Association without further formality, in precisely the same manner that the members of component county societies are ipso facto members of the state associations, on payment of county society dues.

The present status of members who are not affiliated with the American Medical Association is non-descript. There are 70,000 physicians composing the organized profession; all these 70,000 physicians exercise one function of membership in the American Medical Association, i. e., they vote to elect delegates to represent their state associations in the American Medical Association, yet 35,000 or one-half of the number have no constitutional connection with the American Medical Association. This anomalous condition should be corrected and the real status of every physician affiliated with organized medicine be properly defined.

The solution of the problem seems very simple; it only requires changing the appellation of those who have paid annual dues in the American Medical Association to "fellows" of the American Medical Association and apply the name "members" of the American Medical Association to all the other members of the state associations. With this simple alteration in designating the composition of the American Medical Association

every physician who is a member of the county society not only becomes a member of the state association *but also becomes a "member" of the American Medical Association.* If later such member desires to contribute to the support of the American Medical Association he can become a "fellow" and will be entitled to all the privileges that accrue to those now designated as "members" of that body.

The entire subject is lucidly discussed by Dr. Simmons and the plan suggested ought to be adopted and put into operation as soon as possible. When this is done every member of every county society would feel more deeply and more intimately attached to the great national body for he would have documentary evidence of his *membership* in it; whereas now, whilst in reality he does "belong," he lacks the incentive of constitutional recognition of his membership, to attract his personal cooperation with the activities of the American Medical Association.

We would be glad to have members express their views on this subject.

TRAIN SERVICE TO MINNEAPOLIS

There will be special trains for the accommodation of Missouri physicians and others passing through St. Louis and Kansas City from the West and Southwest, attending the annual convention of the American Medical Association at Minneapolis, July 17-20. The Wabash is the official route from St. Louis and will operate special trains on their fast train schedule leaving at such time as will accommodate the members from St. Louis and surrounding territory. The regular Wabash train leaves St. Louis at 2:15 p. m. daily and arrives at Minneapolis at 9 o'clock next morning. If seventy-five or more members will arrange to leave at one time, a special train will be run for their benefit, such train to be provided with all of the appurtenances and conveniences of up-to-the-minute railroad passenger traffic. The secretary will be glad to assist in arranging for the special, or communications may be addressed to J. D. McNamara, general passenger agent, Wabash Railroad, St. Louis.

The Chicago Great Western Railroad will have a special from Kansas City, taking on passengers at St. Joseph and Des Moines. This train leaves Kansas City Sunday, June 15, arriving at Minneapolis Monday morning at 8:15. The Chicago Great Western is the only railroad from Kansas City and St. Joseph having direct service over its own lines to Minneapolis. For information concerning this train service write passenger agent, Chicago Great Western Railroad, Kansas City or St. Joseph.

IRON COUNTY MEDICAL SOCIETY REVIVED

The physicians of Iron County have started a campaign to revive interest in county society work and a meeting was held recently in Ironton for the purpose of renewing their affiliation with the state organization. Thus far Drs. Ira A. Marshall, R. W. Gay, Geo. W. Farrar, Ironton, N. A. Farr, and J. H. Martin, have joined, but others are sure to become members at the next meeting as these gentlemen are working to bring the other doctors in the county into the society.

The revival of Iron County Medical Society is another indication of the growth of the spirit of medical organization in the state, and is especially encouraging because the county is not well equipped with railroad facilities nor can it boast of a large number of physicians. But numbers do not necessarily mean bigness in medical society work for some of the smallest societies, numerically speaking, are among the liveliest in the organization.

We shall expect to see a good percentage of Iron County physicians at the annual session of the state association in St. Louis next month and we hope there will be an unusually large attendance from the southeast section.

The officers of Iron County society are: president, Geo. W. Farrar; secretary, R. W. Gay, both of Ironton.

NEW AND NONOFFICIAL REMEDIES 1913 EDITION

The work of the Council on Pharmacy and Chemistry increases yearly, not only in volume of articles examined but also in usefulness to the practitioner as a fountain of information concerning new remedies and near remedies; and, furthermore, as a safeguard against fraudulent impositions by unscrupulous and dishonest manufacturers. The object of the investigations of the Council is to "protect the medical profession as well as the public against fraud, undesirable secrecy and objectionable advertising in connection with proprietary articles."

For the practicing physician the value of New and Nonofficial Remedies can hardly be overestimated. It has been demonstrated too often to need emphasis here, that the statements of manufacturers concerning the efficacy and constituents of their preparations cannot, ordinarily, be given full credence without confirmation by the Council. There are a few firms whose statements in this respect we have come to regard as wholly dependable, but the number is distressingly small, and of these there is one at least who puts no new product on the market without requesting its endorsement by the Council, namely, H. K. Mulford Company. May their kind increase and multiply.

In New and Nonofficial Remedies the physician will find each article accurately described as to chemical formula, the method of preparation, the dosage, actions and uses and the name of the manufacturer. Thus, the practitioner is in possession of all information needed to guide him in determining whether the article will fulfil his expectations. The inclusion of an article in the book does not mean that the Council recommends the use of the preparation, but it does mean that the preparation conforms to the rules that have been established to safeguard the profession and the public against deceit and fraud. By prescribing these articles the physician knows he is not being misled concerning the constituents, the proportions and the uses of the article. If an article is not in this book it is the better part of wisdom to forego its use until the Council has examined and reported on it.

This is the stand we have taken in our JOURNAL advertising and the members can do no less if they are consistent and in sympathy with the objects of the organization. As an example of this attitude we may mention that an order for a page advertisement (and the income from a page advertisement looms large on our financial horizon at present; a twelve-time page looms twelve times larger) by a firm in every respect desirable and worthy of patronage, was held up for several months, pending approval of the products by the Council. In fact, almost every month we refuse to advertise some articles because they have not been approved. Since THE JOURNAL maintains this strict standard the members should cooperate to the fullest extent and patronize those firms that are represented in the advertising pages. These firms have met the requirements we have established and are justified in expecting their products shall be given first choice when occasion arises for the use of such articles.

In order that you may know all the articles that have been approved and the names of the makers of those articles, this book is published, and every member should possess a copy. It is bound in cloth and paper; the cloth binding sells for 50 cents, the paper for 25 cents. Order from the headquarters of the American Medical Association, Chicago.

A MISSOURI BIOLOGIC LABORATORY

Missouri, the public at large and the profession of the midwest and southwest are fortunate indeed, over the recent establishment in Kansas City of a modern and thoroughly equipped laboratory for the scientific investigation of pathologic and therapeutic problems, and the manufacture of biologic products.

Kansas City on account of its location in western Missouri, and as the gateway to a pop-

ulous southwest territory with vast agricultural and animal resources, occupies a position, medically, of vast importance, making imminent and absolutely essential the establishment here of such a laboratory for purposes of research and experimentation along lines of preventive and curative medicine. The epidemic of cerebrospinal meningitis in Texas, Kansas and our own state a year ago, the plague among the horses of Kansas last fall, the endemic of hog cholera and the usual prevalent human infections and contagions in our midst, all present problems of vital importance to public welfare. These should be carefully studied by well trained and qualified men in local and well equipped laboratories, where the necessary sera, vaccines, antitoxins and allied products for prophylaxis and cure can be prepared and held in readiness and abundance at all times. Such the Sophian-Hall-Alexander Laboratory for Biologic Products of Kansas City, Mo., offers the profession and the public.

The men represented and in control of this laboratory are known to the American profession as scientific and practical. Dr. A. Sophian comes from the New York Research Laboratory where he became specially well trained as a serologist, and subsequently had the enviable experience of assisting in the study and control of the recent meningitis epidemic in Texas. Mr. E. R. Alexander is an expert chemist and was an associate with Dr. Sophian in his work in the New York Research Laboratory. Dr. Frank J. Hall, as a pathologist and bacteriologist, and as a practical laboratory man, needs no introduction to the profession.

A visit to the laboratory in Kansas City and to the farm at Waldo, will convince one of the complete and extensive equipment, and of products most perfectly prepared and carefully preserved. It is very evident that neither time nor expense is being spared in the improvement and perfection of their various biologic products.

Especially to be noted is the attitude of these men toward possible epidemics among the human or animal species of this district. They are interested in the study, the prevention and control of disease to the extent of offering their advice and assistance where requested or required. Thus having within immediate reach experts and a specially fitted laboratory for the investigation of biologic and medical problems arising among men and animals, we should feel especially well protected above the bare possibility of securing without delay the fresh curative media when disease may be established and diagnosed.

Such men and such institutions are a necessity to all large centers of population, and should prove an asset. It is to be hoped that this modern biologic laboratory so conveniently located may be recognized, visited and receive the support it so well merits from the profession of Missouri and surrounding territory.

MORE SIGNS OF BETTER THINGS

While in the past it has been our unpleasant duty to call attention to the many nostrums which have had their origin in Missouri, we recently were able to praise a Missouri house for its attempts to improve the quality of the medicines sold to physicians (*Missouri State Medical Journal*, March, 1913, p. 308).

It now appears probable that Missouri is likely to exert in the near future, a very decided and favorable influence on the active and efficient enforcement of the federal food and drugs act, particularly in so far as it relates to drugs. This for the reason that the newly appointed chief of the bureau of chemistry, Dr. Carl L. Alsberg, on whom falls the principal duty of enforcing the law, will find in the persons of two Missourians, the Hon. David F. Houston, secretary of agriculture, and Dr. Beverly T. Galloway, assistant secretary of agriculture, two men who will do much to insure the success of the vigorous campaign against drug frauds of all kinds that Dr. Alsberg promises to inaugurate.

The fact that the secretary of agriculture has been and is chancellor of the great Washington University of St. Louis, is a sufficient guarantee that he will do all in his power to break the evil spell that has been hovering over the food and drugs act of late. The appointment of Dr. Galloway as assistant secretary is a further guarantee that better things are on the program. Dr. Galloway is not only a Missourian who has made an enviable name for himself as chief of the Bureau of Plant Industry in the Department of Agriculture, but he spent some time in his earlier years in a Missouri drug store. Hence he is bound to be fully alive to the importance and need of a vigorous campaign against impure drugs and fraudulent nostrums.

Concerning Dr. Houston, we quote from the *Washington University Record*, one of the university's publications:

The appointment of Chancellor David F. Houston to the post of Secretary of Agriculture in President Wilson's cabinet connects the university with a form of public service as broad in scope, probably, as any that may be attempted. The eminence of Dr. Houston as an administrator of large and complex affairs, his thorough training as an economist, and his direct familiarity with agricultural problems acquired while president of the Texas State Agricultural College fully justify his elevation to a position which calls for unusual administrative capacity and for familiarity with the quasi-educational problems of the Department of Agriculture and which will demand as well advice to the president on the two great economic issues now confronting the administration, the tariff and the currency. Not alone the confidence which the corporation has in the ability of Dr. Houston and in the excellence of his policy for the employment of the present facilities of Washington University, but the chancellor's own unbounded faith in the great future of

the university and his own unwillingness to sever his connections with it caused him to withhold his resignation and to request a temporary leave of absence. This the board of directors granted, realizing that their first duty was to the nation at large.

In so far as directing medical affairs by the postoffice department is concerned, we are also fortunately circumstanced by the appointment as third assistant postmaster general of Dr. Alexander Monroe Dockery, a graduate of the St. Louis Medical College, and for sixteen years a practitioner of medicine in our state, who acquitted himself most creditably when he presided at the executive mansion and brought to the discharge of his gubernatorial duties that large understanding of medical matters which comes only from extensive experience. The medical profession of Missouri has great confidence in Governor Dockery and congratulates the president and the postmaster-general on this happy selection.

ORDER PROHIBITING INDEMNITY INSURANCE FOR PHYSICIANS REVOKED

One of the first acts of Mr. Charles G. Revelle, newly appointed state superintendent of insurance, was the revocation of the order of his predecessor, Mr. Frank Blake, prohibiting the issuance of indemnity policies to physicians, druggists and dentists in malpractice suits. Mr. Revelle says such an order was an unjust discrimination against the members of these professions. We publish his announcement on another page and commend it to the careful attention of our members.

This is, of course, gratifying information for the members of the medical profession and for the time being, at least, they are officially withdrawn from the list of careless, inebriated and otherwise undesirable citizens, in which unsavory company the whim of a choleric state official has thrust them for the past ten or twelve months. Mr. Revelle has proved by other official acts as assistant attorney-general that he understands the trend and purpose of reputable medical men, and so long as he remains at the head of the insurance department we may expect reasonable interpretations of the law. But insurance superintendents, being made of common clay like the rest of us, come and go, while the science of medicine goes on forever. It behooves the members of the medical organization, therefore, to erect safeguards within the association for their own protection and welfare, which will serve them effectively at all times and forever lift them above dependency on peccant political protégés.

CHIROPRACTORS LEGALIZED IN KANSAS

The Kansas legislature has passed a bill legalizing chiropractors and the newly elected governor, it is said will sign the bill. We have not seen the bill, but if it is anything like the iniquitous measure the chiropractors attempted to pass in the Missouri legislature through House Bill 650, the legislature of Kansas has proved recreant to the trust imposed in it by the people of that state. Instead of protecting the welfare of the people, this law will permit a horde of quacks and charlatans to deceive and defraud the people of both health and dollars. It is a retrogressive step and wholly unexpected of the state which passed the first law to abolish the common drinking-cup. In *The Journal of the Kansas State Medical Society* for March we find the following:

As we go to press word has just reached us that Governor Hodges would not veto the bill which passed both houses and became a law, legalizing chiropractic. It provides that the chiropractors shall be recognized and permitted to register as such and even gives them a separate board of registration, consisting of three chiropractors, one preacher and one school teacher. It is hard to believe that Governor Hodges would permit a bill of this character to become a law. We can only say at this time that he has violated the trust imposed in him by the medical profession. He knew this bill was an injustice of the worst type and will do immeasurable harm and then he refused to put on it his stamp of disapproval. And that, after receiving the support of the medical profession at the recent election which made him governor, he refused to listen or heed to the counsel of the physicians of the state. All of which shows the basest ingratitude and a dense ignorance of the needs of the people of the state. We are genuinely sorry—sorry that we have helped to put such a man in the governor's chair.

There is a lesson in these lines that every physician should heed. We have no doubt that the medical profession in Kansas will in future know beforehand what an office seeker contemplates doing in connection with public health matters before voting for him and working for his success, and will not be satisfied, as it seems they had to be in this instance, with vague and non-committal expressions that the profession would be consulted on subjects concerning which none but the educated and trained physician can speak with authority.

NEWS NOTES

HOOKWORM has made its appearance in Missouri, according to newspaper reports from the State Board of Health. It is said the state bacteriologist has examined persons in Pemiscot and Dunklin counties for possible infection with hookworm and found several positive cases among the workmen in lumber camps.

The fifty-sixth annual meeting convenes at St. Louis, May 13-15. Reduced fares returning if you bring certificate from railroad agent when purchasing your ticket to St. Louis.

DR. CHAS. A. WARE of St. Louis was found guilty of practicing medicine without a license and fined \$50, recently. This is the second time Ware has been convicted of this offense. He was paroled on the first charge after being fined \$50. Two years ago his license was revoked by the State Board of Health and these prosecutions followed his attempts to practice without having his license restored.

THE circuit court of St. Louis has sustained the action of the State Board of Health in revoking the license of Dr. M. Luther Spriggs of Joplin. The Jasper County Medical Society brought charges before the Board of Health against Dr. Spriggs, who had been indicted by the federal grand jury for using the mails to defraud where he entered a plea of guilty and was fined \$2,000. When the Board of Health revoked his license he appealed to the circuit court.

THE Putnam's have published a book that will hold considerable interest for physicians who desire to escape the stiltedness of repetitious phraseology. In "Synonyms, Antonyms and Associated Words," by Louis A. Flemming, all who are interested in writing or speaking correctly and entertainingly will find ready assistance in the selection of words that will exactly express the thought to be conveyed.

GREENE COUNTY MEDICAL SOCIETY has instituted prosecutions against medical fakers in Springfield. The society has gathered evidence against several of the vampiric creatures who prey on the credulities and frailties of afflicted persons. The society has retained one of the best lawyers in Springfield to assist in the prosecution, and will endeavor to drive the quacks out of the county.

The fifty-sixth annual meeting convenes at St. Louis, May 13-15. Reduced fares returning if you bring certificate from railroad agent when purchasing your ticket to St. Louis.

DR. CHAS. W. FASSETT of St. Joseph is arranging to conduct a party of physicians on a tour of Europe in connection with the International Congress of Medicine at London, August 6 to 12. The tour will cover a period of forty-nine days and include visits to the clinics of the Old World.

DR. M. O. BIGGS of Bowling Green has been appointed superintendent of State Hospital No. 1, which is located at Fulton, Callaway County. This is the first institution for the insane that was established by the state and was built in 1847. It is on a tract of land comprising 544 acres, of which 160 acres are in cultivation. There are about 1,200 patients in the institution. In 1910 the percentage of recoveries was .28; the per capita cost for maintenance was 48 cents. Dr. Biggs is 43 years old and graduated in medicine at the University of Louisville in 1892 and has practiced at Bowling Green since that time. He has been a member of the Pike County Medical Society and the Missouri State Medical Association since he entered practice and is also a member of the American Medical Association. He will take charge in June, succeeding Dr. George Williams.

The fifty-sixth annual meeting convenes at St. Louis, May 13-15. Reduced fares returning if you bring certificate from railroad agent when purchasing your ticket to St. Louis.

THE thirty-eighth annual meeting of the American Academy of Medicine (specializing in medical sociology) will be held at Minneapolis, June 13-15. The principal topic of discussion will be "The Physical Bases of Crime." About thirty papers have been promised for this discussion and the subject will therefore be studied from every viewpoint. Some of the other papers to be read are: "Illumination from the Standpoint of Medical Sociology," by Dr. Percy W. Cobb, Cleveland; "The Physician of the Future," by Ray Lyman Wilbur, A.M., M.D., San Francisco, president of the Academy. Other subjects of interest are: Report of Committee to Investigate the Teaching of Hygiene in The Public Schools, Helen C. Putnam, A.B., M.D., chairman, Providence, R. I. Report of the Committee on Teaching Sanitary Science in Medical Schools, John L. Heffron, M.D., D.Sc., chairman, Syracuse, N. Y. Report of the Delegate to the Ninth Annual Conference of the Council on Medical Education of the American Medical Association, William L. Estes, A.M., M.D., South Bethlehem, Pa. Report of the Delegate to the Twenty-Third Annual Meeting of the Association of American Medical Colleges, Alex. R. Craig, A.M., M.D., Chicago.

THE bill introduced by Mr. Woodward, Knox County, at the recent session of the legislature to stop the practice of fee-splitting did not pass. It passed the house but got no further than the first reading in the senate. The bill would have added a new section to the medical practice act, not only fining physicians and surgeons guilty of dividing fees, but also revoking their licenses. This clause read: "It shall be unlawful for any

physician or surgeon to divide or offer to divide his fee or charge for performing any surgical operation with any other physician or physicians, surgeon or surgeons, and any physician or surgeon so offending, on conviction thereof, shall be fined in a sum of not to exceed \$500, and such conviction shall operate as a revocation of his license to practice medicine and surgery.

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SINCE March 1 the following articles have been accepted for inclusion with New and Non-official Remedies:

Acne Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Anti-Meningitis Serum, Sophian-Hall-Alexander Biologic Laboratories.

B. Coli-Communis Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Diphtheria Antitoxin, Sophian-Hall-Alexander Biologic Laboratories.

Gonococcus Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Meningococcus Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Pneumococcus Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Pyocyaneus Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Staphylo-Acne Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Staphylococcus Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Streptococcus Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Typhoid Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Anti-Gonococcic Serum, Sophian-Hall-Alexander Biologic Laboratories.

Anti-Streptococcic Serum, Sophian-Hall-Alexander Biologic Laboratories.

Normal Horse-Serum, Sophian-Hall-Alexander Biologic Laboratories.

OBITUARIES

THEODORE L. WIEGERS, M.D.

Dr. Theodore L. Wiegiers of Wentzville died at his home, March 3, from a heart attack. He was born in Osage County, Mo., in 1870, and graduated from the College of Physicians and Surgeons, St. Louis, 1904. He practiced in his district since his graduation and was a member of

the St. Charles County Medical Society, the Missouri State Medical Association and the American Medical Association.

PEYTON LEONIDAS HURT, M.D.

Dr. Peyton L. Hurt of Boonville died suddenly at his home, February 24, from angina pectoris. He was born in Chariton County, Mo., August, 1845, and received his early education in Central College at Fayette, Mo. His medical education was obtained at the Jefferson Medical College, Philadelphia, from which he graduated in 1867, after having "read medicine" for some time with the late Dr. Scroggins of Switzer's Mills. Dr. Hurt practiced in Boonville for over thirty years and was highly esteemed by a wide circle of friends and patients in Cooper and Howard counties. He was a member of the county medical society in the early years of the reorganization but for the past few years he had not maintained his society affiliation.

LEON STRAUS, M.D.

Dr. Leon Straus of St. Louis died suddenly, March 16, from heart disease, after a few hours' illness. Dr. Straus was born in Waterford, Ky., fifty-seven years ago. He graduated from the Medical Department of the University of Louisville in 1879. He came to St. Louis twenty years ago, specializing in proctology. He was a charter member of the American Proctologic Society, member of the American Medical Association, Missouri State Medical Association and the St. Louis Medical Society. He was a member of the medical staff of St. Luke's Hospital.

In 1903-4 he was vice-president of the American Proctologic Society. In a historical paper read by Dr. Lewis H. Adler, Jr., at the 1910 meeting of the American Proctologic Society, among other papers he considered worthy of special mention, the following of Dr. Straus' were mentioned: "Primary Tuberculosis of the Rectum and Anus with Report of Cases," 1901; "One Thousand Operations for Hemorrhoids without a Death, with Remarks," 1904. Dr. Straus is the second of the fourteen charter members of the American Proctologic Society to die, Dr. James P. Tuttle having died January 31, this year.

Dr. Straus was a pioneer proctologist in St. Louis, a former assistant of Dr. Joseph M. Mathews of Louisville, Ky. He was a man of strong individuality, thoroughly in love with his work, and will be greatly missed by the medical profession of the Middle West. An only daughter survives him, to whom he extend our sympathy in her bereavement.

W. H. STAUFFER.

ROLLIN H. BARNES,

Committee of the St. Louis Medical Society.

CORRESPONDENCE

LISTER MEMORIAL FUND

My Dear Doctor—In *The Journal of the American Medical Association* for January 25, p. 308, was published a letter from myself asking for contributions toward the Lister Memorial. I have received up to the present time from one gentleman a subscription of \$10. This is the entire response of the surgeons of America to an appeal for the man who has done more for surgery than any other man since the days of John Hunter.

Would you not be willing to stir up your friends over the country and see if we cannot send a handsome amount to the gentlemen in charge of the memorial scheme? I should be ashamed to send \$10 as the sum total of the subscriptions besides my own (\$25) sent some time ago.

Yours very truly,

W. W. KEEN.

ACQUIRE THE GOOD HABIT OF REGULAR ATTENDANCE AT THE MEETINGS OF YOUR COUNTY SOCIETY.

SOCIETY PROCEEDINGS

FIFTY-SIXTH ANNUAL MEETING OF THE MISSOURI STATE MEDICAL ASSOCIATION, ST.

LOUIS, MAY 13, 14, 15, 1913

PROGRAM

- Diagnostic and Postoperative Care in Acute Surgical Conditions.—F. W. Bailey, St. Louis.
- The Rectal Plug.—Rollin H. Barnes, St. Louis.
- A Review of the Present Situation in the State Hospital Service of Missouri.—M. A. Bliss, St. Louis.
- The Physician, Patient and Surgeon.—J. C. Boone, Charleston.
- Title to be announced.—Jules M. Brady, St. Louis.
- Management and Treatment of Tuberculosis.—J. P. Brandon, Essex.
- Simple and Exophthalmic Goiter.—O. B. Campbell, St. Louis.
- Arterial Hypertension.—S. P. Child, Kansas City.
- Operative Procedures in the Treatment of Uterine Displacements.—John McH. Dean, St. Louis.
- Clinical Aspect of Septic Endocarditis.—F. W. Froehling, Kansas City.
- Acute Pancreatitis.—Howard Hill, Kansas City.
- Perinephritis.—Henry Jacobson, St. Louis.
- Title to be announced.—H. J. Jurgens, Edina.
- The Choice of Operation in Prostatectomy.—Ernest G. Mark, Kansas City.
- Epidemic Puerperal Eclampsia, with Report of Case.—E. H. Miller, Liberty.

Our State Insane Asylums and How They May Be Improved.—M. P. Overholser, Harrisonville.

Primary Carcinoma of Appendix, with Report of Two Cases.—Louis Rassieur, St. Louis.

A Rare Congenital Defect of the Nose and Its Correction.—Francis Reder, St. Louis.

Title to be announced.—H. L. Reid, Charleston.

Bacterin Therapy.—J. D. Seba, Bland.

Acute and Subacute Bright's Disease in Childhood.—T. H. Shy, Centerville.

The Pathology and Bacteriology of Septic Endocarditis.—A. Sophian, Kansas City.

Internal Urethrotomy.—H. McClure Young, St. Louis.

Symposium on Habitual Constipation:

Etiology and Physiology of Habitual Constipation.

—Wm. H. Stauffer, St. Louis.

Habitual Constipation, Mainly with Reference to Its Constitutional Effects.—Woodson Moss, Columbia.

Cutaneous Manifestations of Habitual Constipation.

—J. P. Kanoky, Kansas City.

Diet and Constipation.—J. M. Bell, St. Joseph.

Drugs and Constipation.—O. B. Hall, Warrensburg.

Surgical Procedures in Constipation.—A. E. Hertzler, Kansas City.

X-Ray Investigations of Constipation.—E. H. Skinner, Kansas City.

ACQUIRE THE GOOD HABIT OF REGULAR ATTENDANCE AT THE MEETINGS OF YOUR COUNTY SOCIETY.

ST. LOUIS MEDICAL SOCIETY

THE MEDICAL LIBRARY QUESTION

The members of this Society can well afford to spend an evening in the study of the St. Louis Medical Library question.

Fiction is perhaps entirely out of place in these columns, but here is hoping that something may be ground out that may get past the Editor. It was only a dream, but it was apropos of the library discussion, and hence we record it.

"One cold, damp, dismal night recently, a certain old doctor had no calls, and he was hoping he would have none. While toasting his toes before the old hot-air register and reclining in his easy chair, he slept; and while he slept his wandering dream thoughts for some inexplicable reason got into the channels that had been made in his gray matter by the medical library question.

"He saw himself lonesomely sitting in the reading room of the St. Louis Medical Library by himself and alone, when, to his consternation, there came stepping out from the book shelves several old hide-bound volumes. The old doctor, in his surprise and almost fear, slid down in his chair behind the huge volume that he had been reading, peeping around the book he thought to observe what might happen.

"But after a little rustling around, scratching backs and shaking off the dust, those animated, antiquated volumes became quiet. But shortly the old doctor began to hear voices, and again his attention was attracted to the volumes, which were now closely grouped, apparently earnestly engaged in the discussion of a serious subject. One of the volumes was heard to say, 'My, but I'm surely glad to get off that shelf'; and another chimed in, 'It's a great privilege to have the ability to climb down from those musty shelves, even though it is only once a decade.'

"A bound volume of the *Journal of the American Medical Association*, speaking to a copy of the *Wiener Klinische Wochenschrift*, said, 'Wochoy, there is something wrong. I have not seen ten men in this library for a week.' And the *Wiener Klinische Wochenschrift* said to the *Jour. A. M. A.* volume, 'Jamie, did you hear that last fellow that was here say that he was not a member of the medical library association?' The *Jour. A. M. A.* said to the *Wochenschrift*, 'Wochoy, they do say there is to be a discussion on the medical library question by some noted Dock who thinks he knows what is wrong with us, and just what is good for what is wrong.' 'But, Jamie, do you think there is anything new to try on our malady?' 'No, perhaps not,' said Wochoy, 'though once we have been failed at, shall we not be tried again at? And say, Jamie, do you think we will last to be on those new fireproof shelves of the Busch Medical Library?' 'Oh, Wochoy, do you mean to tell me that Busch has seen us and—' But this proved to be such a thriller for the old doctor that he awoke to find himself in the middle of the floor doing a bunny hug with his *Post-Dispatch*."

But seriously there is no other problem that so vitally concerns the Better Medical St. Louis as that of the Medical Library. We earnestly request that you, dear reader, will come out to hear what Professor Dock has to say on the Library Question.

THE PROGRAM COMMITTEE.

PROGRAM

Visiting physicians cordially invited.

Saturday, April 19, 1913.—"A Microscopical Study of the Conjunctival Vessels; Report on a Series of 700 Examinations," Dr. Wm. H. Luedde; "Trypanosomiasis," with lantern slide demonstrations, Dr. E. N. Tobey (by invitation).

Saturday, April 26, 1913.—Program to be supplied by members of the Section on Obstetrics and Diseases of Women.

Saturday, May 3, 1913.—"The Circulation of the Kidney and Its Relation to Certain Kidney Diseases," Dr. C. E. Burford; "The Phthalcin Test for Renal Function with Relation to Operative Procedures," Drs. J. R. Caulk and T. M. Davis; "Stereopticon Views of Pathological Conditions of the Kidney and Ureter, with Methods of Examination," Dr. Bransford Lewis.

Saturday, May 10, 1913.—"A Symposium on Laboratory Aids in Medical and Surgical Diagnosis."

Saturday, May 17, 1913.—"Polyadenoma Gastrica," Dr. J. S. Meyer; "Diagnosis and Treatment of Diseases of the Sigmoid Flexure of the Colon," Dr. W. H. Soper.

APPLICATIONS FOR MEMBERSHIP

(With Names of Members Proposing Them)

FIRST PUBLICATION

Lister Tuholske, 4525 McPherson Ave.—Louis H. Behrens, Henry Schwarz.

SECOND PUBLICATION

Charles H. Eyermann, City Hospital—Frederic Hagler, C. M. Bauman.

THIRD PUBLICATION

Henrietta A. S. Borek, 3928 N. Twentieth St.—Walter B. Dorsett, Frank J. Lutz.

Schuyler C. Harbour, 1520 Marcus Ave.—F. P. Parker, Charles P. Martin.

George E. Krapf, 2318 Lafayette Ave.—C. Barck, J. J. Link.

ACQUIRE THE GOOD HABIT OF REGULAR ATTENDANCE AT THE MEETINGS OF YOUR COUNTY SOCIETY.

GREENE COUNTY MEDICAL SOCIETY

Program for the year 1913:

April 11.—"Prostatic Enlargement," Dr. C. E. Burford, St. Louis. Discussed by Drs. J. E. Dewey and B. F. Fortner.

April 25.—"The Fitting of Glasses in Its Relation to the Practice of Medicine," Dr. T. A. Coffelt. Discussed by Drs. D. B. Farnsworth and T. O. Klingner.

May 9.—"The Doctor as a Business Man," Dr. S. W. Tickle. Discussed by Drs. W. M. Smith and J. R. Boyd.

May 23.—"Weakness of Heart and of Arterial Tonus, Especially in Acute Infectious Diseases, and Its Treatment," Dr. William Rienhoff. Discussed by Drs. G. B. Lemmon and O. N. Carter.

June 13.—"Typhoid Fever and Relapses," Dr. Enoch Knabb. Discussed by Drs. G. W. Barnes and O. L. Peak.

June 27.—Public meeting.

September 12.—Social meeting.

September 26.—"Gastric Ulcer," Dr. J. W. Williams. Discussed by Drs. J. M. Potts and J. R. Bartlett.

October 10.—Dr. J. R. Bartlett, subject unannounced. Dr. C. B. Elkins, subject unannounced.

October 24.—"Arteriosclerosis in Its Relation to Life Insurance," Dr. F. B. Fuson. Discussed by Drs. J. P. Ralston and H. A. Lowe.

November 14.—"The Comprehensiveness of the Word Consciousness as Applied to Mental and Nervous Diseases," Dr. S. A. Johnson. Discussed by Drs. W. P. Patterson and Wilber Smith.

November 28.—"The Medicine of To-morrow," Dr. C. E. Woody; subject unannounced, Prof. Harrison Hale.

December 12.—Election of officers.

December 26.—"Anesthesia," Dr. William Smith. Discussed by Drs. S. A. Johnson and D. U. Sherman.

HENRY COUNTY MEDICAL SOCIETY

The Henry County Medical Society met in regular session March 12. The meeting was called to order by the president, Dr. Lee Wright of Lowry City. There were ten members present, but none of the essayists. Dr. Cline of Appleton City and Drs. Smith and Bell of Osceola were present, and the meeting was a social and business one.

Drs. Miller, Peelor and Wallis were, with their consent, placed on the program for papers at the next meeting. Drs. U. G. Strieby and W. H. Dice were elected to membership.

A resolution condemning house bill No. 650 was passed and a petition signed asking our senator and representative to vote against the bill. The committee on this resolution was Drs. Wallis, Haire and Shankland.

The committee appointed on public health and legislation was Drs. Wallis of Clinton, Cline of Appleton City and Smith of Osceola.

Dr. Kelly of Sedalia, counselor of the district, was present and made a splendid practical talk, urging the members to attend the state meeting, hold public meetings and appoint a member to prepare a paper for the state meeting. The Society enjoyed Dr. Kelly's address and would be glad to have him come again. Dr. Haire was asked to prepare a paper for the state meeting, which he promised to do.

WM. M. SHANKLAND, M.D., Secretary.

JACKSON COUNTY MEDICAL SOCIETY

Sessions are held in the rooms of the Kansas City Medical Library on the thirteenth floor of the Rialto Building, Kansas City, every Tuesday evening at 8 o'clock. Visiting physicians cordially invited to attend.

MEETINGS AND PROGRAMS

GENERAL SECTION

Tuesday night, April 1, 1913.—"Uterovaginal Prolapse" by Howard Hill; "Paper on Anesthesia" by W. W. Stevens.

Tuesday night, April 15, 1913.—"Malignant Verrucous Endocarditis," A. Sophian; "X-Ray Diagnosis in Gastro-Intestinal Diseases," E. H. Skinner.

Tuesday night, April 22, 1913.—To be furnished by the Obstetric-Pediatric Section.

EYE, EAR, NOSE AND THROAT SECTION

Tuesday night, April 8, 1913.—Presentation of cases; "Exophthalmus Concomitant with Menstruation," A. W. McAlester; "Some Observations and Impressions on the Canal Zone," Hal Foster; "Ocular Complications of Locomotor Ataxia," J. H. Thompson.

Dr. H. D. Sterrett, Rialto Building, was proposed for membership on a transfer from the Reno County (Kansas) Medical Society.

Dr. Joseph J. Carter was elected a member by ballot of the Council on a transfer from the Platte County (Mo.) Medical Society.

Dr. R. L. Sutton was appointed a committee to investigate the various railroad routes to Minneapolis for the A. M. A. meeting and to St. Louis for the Missouri State meeting and recommend an official route to each of these meetings.

ACQUIRE THE GOOD HABIT OF REGULAR ATTENDANCE AT THE MEETINGS OF YOUR COUNTY SOCIETY.

ST. JOSEPH-BUCHANAN-ANDREW COUNTY MEDICAL SOCIETY

Regular meeting of the St. Joseph-Buchanan-Andrew County Medical Society held at their rooms Wednesday evening, March 19, President A. L. Gray in the chair; thirty-nine members present. The minutes of the previous meeting were read and approved.

The following amendments submitted by the committee appointed for that purpose were read for the second time and were adopted without discussion:

Amendments to the Constitution to read as follows:

ARTICLE I

Name and title of this organization shall be St. Joseph-Buchanan-Andrew County Medical Society.

ARTICLE II

The purpose of this Society shall be to bring into one organization the physicians of Buchanan and Andrew counties, etc.

ARTICLE VI

The annual dues shall be \$5.00 per year.

Amendments to the By-Laws:

CHAPTER I

Section 1.—The Society shall be judge of the qualifications of its members, but as it is the only door to the State Medical Association and to the American Medical Association for physicians within its jurisdiction, every reputable and legally qualified physi-

cian in Buchanan and Andrew counties, who is a graduate of a reputable school of medicine, and who does not support or practice or claim to practice sectarian medicine, and who does not engage in contract lodge practice or contract family practice shall be eligible to membership.

CHAPTER II

Sec. 2.—A meeting shall be held at 8 p. m. on the first and third Wednesday in each month or oftener, etc.

CHAPTER V

Section 1.—The admission fee, which must accompany the application shall be \$5.00, etc.

Sec. 2.—The annual dues shall be \$5.00.

Dr. G. W. Boteler called attention to articles appearing in the *St. Joseph Gazette* and *News Press* reflecting on the deliberations of this body subsequent to their meeting of Wednesday evening, March 5, and introduced a motion, seconded by Dr. Byrne, that the president appoint a committee for the purpose of ascertaining the source of this information to the newspapers and making a report thereof to the board of censors. The motion prevailed and the president appointed the following committee: Drs. G. W. Boteler, F. H. Ladd and T. J. Lynch.

At the suggestion of Dr. Hansler, the president instructed the executive committee of this Society to confer with the proper officers of the various lodges in our city and acquaint them with the stand taken by this Society regarding the employment of lodge and family contract doctors.

On motion of Dr. O. G. Gleaves, seconded by Dr. W. J. McGill, the Society placed itself on record as condemning lodge and contract practice.

Dr. L. J. Dandurant reported an unusual case of fecal fistula. Dr. B. W. Toothaker read a paper on the "Etiology and Diagnosis of Measles." The discussion on treatment was led by Dr. O. G. Gleaves and the following members took part: Drs. J. H. Sampson, Stamey, G. R. Stevenson, R. Willman, J. J. Bansbach.

Dr. Charles Geiger presented a clinical case of mucocolitis with complete recovery following operation. This case was discussed by the following members: Drs. O. B. Campbell, J. I. Byrne, LeRoy Beck, W. J. McGill, Daniel Morton, H. Lee.

W. F. GOETZE, M.D., Secretary.

ACQUIRE THE GOOD HABIT OF REGULAR ATTENDANCE AT THE MEETINGS OF YOUR COUNTY SOCIETY.

WAYNE COUNTY MEDICAL SOCIETY

The Wayne County Medical Society met in regular session at the office of Dr. J. E. Gilmer, Piedmont. The meeting was called to order by the president, Dr. G. W. Toney. Members present: Drs. G. W. Toney, J. E. Gilmer, L. E. Toney, T. Freeman and R. J. Owens.

Drs. G. W. Toney and J. E. Gilmer reported a case of "Ectopic Gestation" seen in consultation with Dr. Bailey of Leeper. The diagnosis was confirmed by an operation at Missouri Baptist Sanitarium, St. Louis, patient recovering.

Drs. R. J. Owens and L. E. Toney reported other interesting cases, followed by a general discussion.

This being the first meeting of the year 1913, officers were elected. Only five members were present and a vote was cast to retain the 1912 officers for another year. Those present paid their annual assessment.

No further business appearing, the meeting adjourned to meet again May 6 at the office of Dr. R. J. Owens, Mill Spring.

T. FREEMAN, M.D., Secretary.

WEBSTER COUNTY MEDICAL SOCIETY

The Webster County Medical Society met in quarterly session at Fordland, March 19. The meeting was called to order at 1 p. m. and Dr. M. Highfill was chosen as president pro tem. Drs. Beatie, Highfill, Bruton, Rabenau, Good, Adkins, Sayers, McHaffie and Bruce answered the roll call.

Dr. W. R. Beatie was appointed to read a paper before the Greene County Medical Society at a future date.

Drs. E. M. Bailey of Elkland, J. R. Bruce of Marshfield, T. S. Bruton of Seymore, W. J. Rabenau of Fordland and C. H. McHaffie of Rogersville were appointed by the chair to act as a committee in connection with the National Red Cross Relief Committee for this district.

The resolution of Dr. Sayers of Rogersville in regard to the fee splitting problem, which has laid over one meeting, was taken up and discussed and passed. The resolution follows:

Inasmuch as the so-called fee splitting question is now before the State Medical Society, and believing that the doctor who makes the diagnosis and prepares the patient for operation has rendered at least one-half the services; be it

Resolved, First, that the Webster County Medical Society go on record as favoring a just compensation to both physician and surgeon, but do not favor the patient paying a double fee. Second, that we instruct our delegate to oppose any resolution in the State Society which favors a man collecting and keeping the entire fee when he has rendered only one-half the services.

Reports of cases were then taken up and with their discussions took up most of the time. Dr. Beatie reported a bad case of rheumatism with some improvement. Dr. Bruce reported using pituitrin in several cases with good results. Dr. McHaffie reported several cases of gall-stones. Discussion on these was very interesting to all present.

The next meeting will be held at Elkland in June.

JOHN R. BRUCE, M.D., Secretary.

MISCELLANY

MEMBERSHIP IN THE AMERICAN MEDICAL ASSOCIATION

The Proposed Change in Name

GEORGE H. SIMMONS, M.D., LL.D.

CHICAGO

[Explanatory Note:—This abstract of an address before the Conference of State Secretaries is republished from the *American Medical Association Bulletin* of Nov. 15, 1912, on the request of the Judicial Council. The House of Delegates referred the report of the Committee to Formulate Amendments to the Constitution and By-Laws to Extend Membership, presented at the 1912 session (*Journal A. M. A.*, June 15, 1912, p. 1899) to the Judicial Council with power to confer with constituent associations. The Council, after careful consideration, endorses the proposed change and takes this means of bringing the subject to the constituent associations as well as directing to it the attention of the members.]

I have been asked to discuss the present conditions of membership in the American Medical Association and the proposed change, which has been under discussion recently. While this is not directly related to the object of this conference, the discussion of uniform regulation of state membership, it is so closely connected with it that I cannot refuse to take advantage of the opportunity of discussing the question before such a large representation of state secretaries.

To get a clear understanding of what the present term "members" of the American Medical Association means, it is necessary to go back a little in the history of the Association.

The American Medical Association always has been a delegated body; only "delegates" ever had a right to take part in its proceedings.

"Permanent members" was a term originally applied to those delegates who connected themselves permanently with the Association after they had served as delegates. "Permanent members," however, had no rights except those of attending the meetings and taking part in the scientific work. In 1883, THE JOURNAL was started and the following year, for the purpose of increasing the circulation of THE JOURNAL, there was

component county societies, amounting approximately to 70,000 members. These elect the delegates to the House of Delegates of the state associations; they in turn elect the delegates who form the House of Delegates of the American Medical Association. Before 1901 the delegates to the American Medical Association were elected, or appointed, by the "affiliated" societies, which included local, district and state societies. Since 1901, that is, since the reorganization, the delegates to the national body are elected not by local, district and state societies, but by the state societies alone.

2. The so-called "members of the American Medical Association" are the direct successors of the old "members by application." By their payment of dues and their subscriptions to THE JOURNAL, they were and

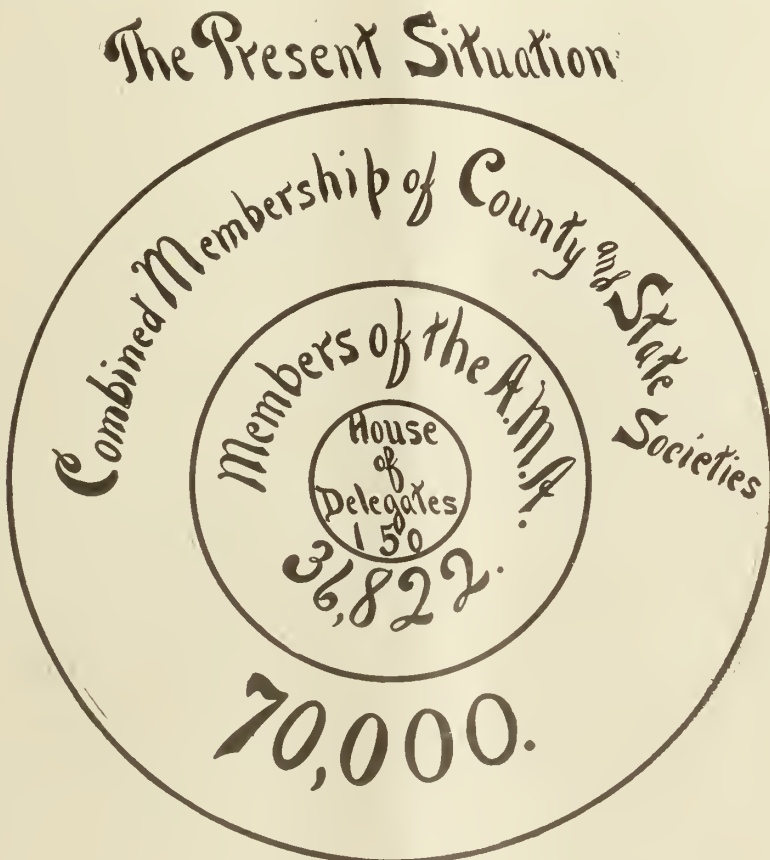


Chart 1

created another class: "Members by Application." A member of any so-called affiliated society could become a "member by application" simply by making application for membership and paying the annual dues. The difference between "members by application" and "permanent members" was that the latter had been delegates, whereas the former became members simply by making application. Neither "permanent members" nor "members by application" had vote or voice in business meetings.

MEMBERSHIP IN THE A. M. A. TO-DAY ON THE SAME BASIS AS THE FORMER "MEMBERS BY APPLICATION"

Briefly, we have the following situation:

1. The voting membership of the organization is the combined membership of all the 2,000 (more or less)

are to-day the supporting or contributing group of the members of the organization.

3. The House of Delegates is composed of approximately 150 members, who are elected by the various state Houses of Delegates, which are in turn composed of delegates elected by the members of the component county societies. The House of Delegates of the American Medical Association, therefore, is created by, and represents the combined membership of all the county societies of all the states; it is not elected by, nor does it represent, the present "members of the American Medical Association" as such; it never has.

The result is that we have two classes which could be called members. First, the actual, logical memberships of 70,000, usually designated as "the membership of the organization." Second, the 36,822 contributing

or supporting members, who are designated as "members," although these "members of the American Medical Association" have no more privileges than have all members of the organization, except the right to take part in section work. This present situation I have had shown on the accompanying chart (Chart 1). The membership of the American Medical Association, at present 36,822, is an inner circle of the membership of county societies, while the House of Delegates is a still smaller circle composed of those who have been elected to represent the members of the organization of the whole country.

Now the situation itself is perfectly logical and is in every way to be commended. The trouble is that we have not named our groups accurately. Those whom we

Medical Association" instead of "members." This will make no change in the membership standing or relations of any man. If this suggestion is adopted, all members in good standing in their state organizations will be designated as "members of the American Medical Association," while those members who contribute \$5 a year to support the work of the Association will be designated as "fellows of the American Medical Association." In other words, those who are now known as "members" of the American Medical Association will be known as "fellows" of the American Medical Association, while the term "members" will be applied to the entire, combined membership of the component county societies of the whole country.

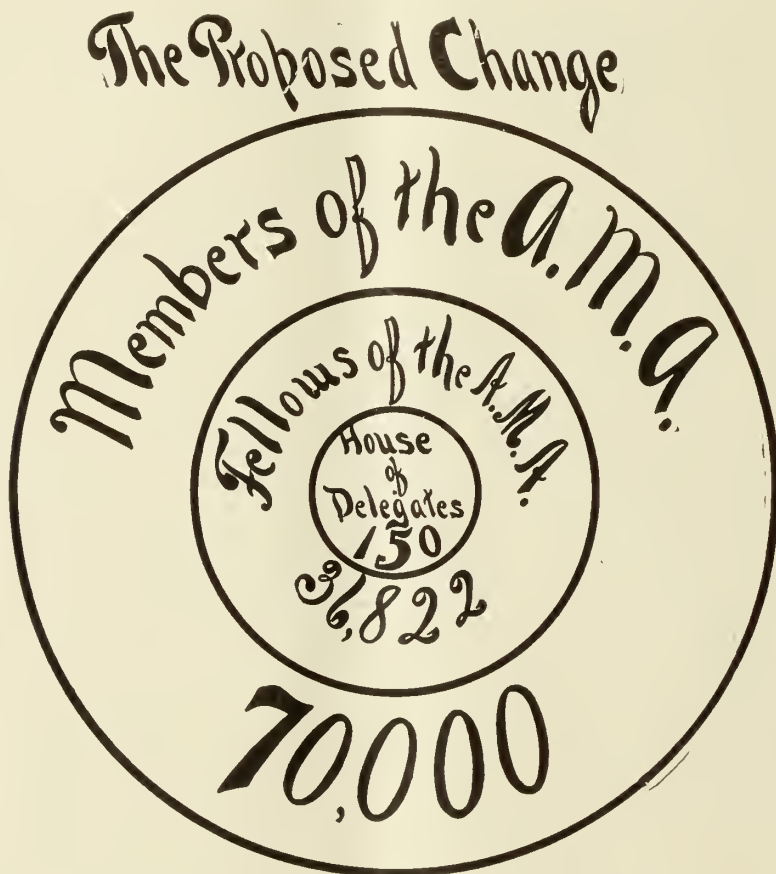


Chart 2

now call "members of the American Medical Association" are really those members of the organization who, in addition to supporting their county and state associations, also contribute to the support of the American Medical Association, while for the actual membership of 70,000 members we have no distinctive name.

The change that has been proposed is not a change in condition at all. It is simply a change in name. It is proposed to designate the 70,000 members included in the large outer circle (Chart 2) as "members of the American Medical Association," which they really are and always have been, while those included in the inner circle (that is, those members in good standing of their county and state societies, who also pay \$5 a year to support the work of the American Medical Association) are to be called "fellows of the American

This plan has several advantages. In the first place it will give us a name for the entire membership of the organization, which we have never had before. Before 1901 they were referred to as members of "affiliated" societies, and since then they have been called, for lack of a distinctive name, "members of the organization." Another advantage will be that it will make clear that the voting power lies with the 70,000 members and not with the 36,822 "fellows." When this plan was first proposed, some got the impression that the intention was to compel the 70,000 members of the county societies to become "supporting members" of the American Medical Association, as the term is now understood. This, of course, would be a ridiculous proposition. The proposed change contemplates leaving membership conditions exactly as they

are; it contemplates changing the name, and not the relation.

One great disadvantage prior to the reorganization of the American Medical Association in 1901 was the fact that we had no name by which to designate the delegates. As soon as the name "House of Delegates" was adopted, then the function of the delegates became clear at once. The Association also has labored under the disadvantage, ever since its reorganization, that there has been no name by which to designate the actual voting membership, because the term "members" had been applied to the supporting body. The proposed change simply recognizes this fact, designating as "members" those who really are members, and designating the supporting members as "fellows."

I have already given some reasons for making the change, but there is another and more important; in fact, it is the paramount reason. Up to the present time, the members of the organization have not realized that they are, in reality, members of the American Medical Association. They regard the American Medical Association as something entirely apart from them, something in which they have no interest. These members of the organization are through their elected representatives responsible for what the American Medical Association is doing, or what it ought to do and is not doing, but they do not realize this, hence they are not interested. They do not appreciate that the House of Delegates of the American Medical Association, which they elect, is the body that is doing the work through the officers, trustees, councils, etc., which they, through their representatives in the House of Delegates of the American Medical Association, select. While only a change in name, I think the subject is of the utmost importance. I hope that all of you will look into it carefully, so as to understand exactly what is intended, and then will explain it to your members at the first opportunity.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago, Ill.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

MENINGOCOCCUS VACCINE contains in each c.c. about 1,000 million killed meningococci. G. H. Sherman, Detroit, Mich. (*Jour. A. M. A.*, March 1, 1913, p. 665).

STAPHYLOCOCCUS PYOGENES AUREUS VACCINE is marketed in two strengths: 1. Containing in each c.c. about 300 million *Staphylococcus pyogenes aureus*. 2. Containing in each c.c. about 600 million *Staphylococcus pyogenes aureus*. G. H. Sherman, Detroit, Mich. (*Jour. A. M. A.*, March 1, 1913, p. 665).

STAPHYLOCOCCUS PYOGENES ALBUS AND AUREUS VACCINE contains in 1 c.c. *Staphylococcus pyogenes albus* and *aureus* each 600 million. G. H. Sherman, Detroit, Mich. (*Jour. A. M. A.*, March 1, 1913, p. 660).

PNEUMOCOCCUS VACCINE is marketed in two forms: 1. Each c.c. contains 40 million killed pneumococci. 2. Each c.c. contains about 100 million killed pneumococci. G. H. Sherman, Detroit, Mich. (*Jour. A. M. A.*, March 1, 1913, p. 665).

REFORM IN MEDICINES

"CLINICAL REPORTS."—The sheafs of uncritical "clinical reports" which exploiters of utterly worthless "ethical" proprietaries have furnished in support of the medicinal virtues of their nostrums show that the "after this, therefore because of this" style of reasoning is not confined to the laity in the judgment of medicines but is also applied by many physicians. Many doctors who, in standing up for their pet proprietary, take the attitude, so ably described by George Eliot, of those persons who are distrustful of scientific methods. They will grudgingly admit that while, as a general thing, two sides of a triangle are together greater than the third side, yet after all we must be careful, as it is easy to carry mathematical reasoning too far (*Jour. A. M. A.*, March 1, 1913, p. 674).

PA-PAY-ANS (BELL).—Bell & Co. (Inc.) are trying to boost a preparation of theirs, Pa-pay-ans (Bell), advertised to be a "sure-cure" for acute indigestion. This is a mixture consisting essentially of sodium bicarbonate, charcoal and ginger, sweetened with saccharin and flavored with oil of wintergreen. They publish testimonials from physicians—not giving the names—and when asked for names they replied: ". . . in fairness to the men who write us we must withhold their names. No one of any standing in the profession would allow us to publish his name. . . ." Bell & Co. are closely associated with the L. D. Johns Co., a pseudomedical concern that obtains its capital by selling stock to physicians who are not above going into that kind of business (*Jour. A. M. A.*, March 1, 1913, p. 682).

THE UNITED DOCTORS.—Advertising quacks constitute a menace almost equal to that of the "patent-medicine" fakers. By their unscrupulous methods and fake schemes people are led to patronize these quacks, to the detriment of their health. The "United Doctors" is an organization of this kind, practically owned and controlled by one man. Offices are established in large towns and are operated until the public is milked dry. Their scheme is to advertise a "wonderful" system of treatment by which they claim to cure any disease from eczema to paralysis. Newspapers should be censured for accepting advertising matter of this kind, for when the newspapers no longer carry such fakes, concerns like the "United Doctors" will be forced out of business (*Jour. A. M. A.*, March 1, 1913, p. 682).

NO MEETING.—The secretary of the Westmoreland County Medical Society states that the society has held no meeting at which Phylacogens were discussed as has been asserted in the Special Phylacogen Number of *Therapeutic Notes*, published by Parke, Davis & Co. (*Jour. A. M. A.*, March 1, 1913, p. 688).

THE FALLACY OF HYPOPHOSPHITES.—Hypophosphites have been recommended especially in pulmonary tuberculosis with the belief that the phosphorus was of special value in this disease, and that the hypophosphite was the best form in which to administer phosphorus. There is no evidence to show that hypophosphites are utilized by the system, but instead it appears that they are excreted unchanged. While thus the hypophosphites do not furnish phosphorus to the body it is possible that they might have some direct action of their own on the course of the disease, but the clinical evidence for this is very slight. Alto-

gether the hypophosphites with their many unscientific combinations described in the Pharmacopeia and the National Formulary could well be eliminated from our materia medica (*Jour. A. M. A.*, March 8, 1913, p. 747).

ANTIMERISTEM-SCHMIDT.—Antimeristem-Schmidt is a preparation claimed to be useful in the treatment of inoperable cancer and as a supplementary treatment after operation for cancer. The treatment is founded on the theory advanced by Dr. O. Schmidt that the cause of cancer is found in a fungus, *Mucor racemosus*, which, Schmidt at first asserted, carried a protozoon which he regarded as the real cause of the disease. The "serum" or rather the vaccine, is prepared from cultures from this fungus. While Schmidt claims that he has been able to produce cancer by means of the organism, scientific research has not verified his claims. Extensive clinical trials have shown the treatment to be without effect (*Jour. A. M. A.*, March 8, 1913, p. 766).

PERTUSSIN.—Pertussin is a proprietary whooping-cough remedy manufactured by the Kommandanten Apotheke, Berlin. A physician's sample of this preparation sent out by Lehn & Fink bears a label on which appears the following: "100 parts Pertussin contains: ½ OI. Thymi, et Thymol, 21½ Ext. Thymi 'Taeschner,' 50 Saccharum, 2 Glycerinum, 6¼ Alcohol, 19¾ Aqua Destillata." Pertussin belongs to that class of vegetable preparations which, since they contain no distinctive principle, are difficult of analysis—particularly as concerns the "joker" in the formula, in this case "OI. Thymi, et Thymol" and "Ext. Thymi 'Taeschner'"—hence there has been much dispute as to the composition of this nostrum. In general, it appears that whatever virtues it has are due to some preparation of common thyme (*Jour. A. M. A.*, March 8, 1913, p. 766).

PASADYNE.—According to the manufacturer Pasadyne is a tincture of passion-flower. Formerly this nostrum was sold under the title "Daniel's Concentrated Tincture of Passiflora Incarnata." While the manufacturer claims marvelous virtues for the preparation, passiflora (passion-flower) is now generally recognized as being of little if any value. The Council on Pharmacy and Chemistry has refused recognition both to the drug passion-flower and to the proprietary preparation of Daniel—the first because its value has not been established and the second because of extravagant and unwarranted therapeutic claims (*Jour. A. M. A.*, March 8, 1913, p. 766).

BIOSOL.—H. Hille, once of Heidelberg, now of Oak Park, Ill., has reached the conclusion that mineral starvation is the cause of all diseases. He claims to have found a remedy and calls it Biosol. Biosol is an indescribable mixture of alcohol, carbohydrates, and various mineral bodies—ranging all the way from sodium, potassium, calcium and magnesium to silicon, copper, uranium and thorium. It is said to be a valuable food as well as medicine. A dose of this food might keep a rabbit alive for several hours, and a man who could stand the expense and escape death from delirium tremens might live on three quarts of the mixture per day. Fortunately human beings have little occasion to fear mineral starvation and may obviate whatever danger there may be by a drink of milk (*Jour. A. M. A.*, March 8, 1913, p. 767).

LLOYD'S SPECIFIC MEDICINES.—While some of the products of Lloyd Bros. appear to be proprietary medicines of secret composition, in the main they are the so-called "specific medicines" or "specific tinctures." In general, it is understood that these preparations belong to that class of obsolete pharmaceuticals known as "green tinctures," which at one time were believed to possess great virtues because they were made from the fresh, undried drug. The use of so-called "green tinctures" has been a fad and has never been put on a scientific basis. In an examination of digitalis preparations by Edmunds and Hale, Lloyd's "Specific

Medicine, Digitalis" was found to be one of the weakest of all the various preparations examined, although it was claimed to be twice as active as ordinary fluid-extracts (*Jour. A. M. A.*, March 15, 1913, p. 848).

IOSALINE.—Iosaline is advertised as a remedy for the treatment, by external application, of rheumatism, gout, neuralgia, pneumonia and numerous other diseases. The following claims are made: "Iosaline is a penetrator and overcomes the objectionable escharotic properties of iodine; it is readily absorbed and may be used without discomfort or discoloration." As there are few iodine compounds which are "readily absorbed" through the skin and which will not at the same time produce discoloration or discomfort, the product was examined in the A. M. A. Chemical Laboratory. The examination indicated the composition to be, approximately: Alcohol (by weight) 48.05 per cent., menthol 2.07 per cent., methyl salicylate 10.25 per cent., potassium iodide 5.55 per cent., soap 12.68 per cent., glycerin a trace, water and undetermined matter to make 100 per cent. Physiologic tests showed that the iodine was not absorbed by the skin. The laboratory findings having been reported to the Council on Pharmacy and Chemistry, this body voted that, because of the unwarranted and misleading claims, Iosaline be refused recognition (*Jour. A. M. A.*, March 15, 1913, p. 848).

GLUTEN FLOUR.—There exists in the mind of the public and even of many physicians the dangerous misconception that so-called "gluten flours" or "diabetic foods" are essentially free from starch. This danger has been increased by the Food and Drugs Act for, while there is a natural belief that the law should protect the public, the government standard for gluten flour makes no requirement regarding the starch content, which is the item of importance from the standpoint of the diabetic. The government regulations merely prescribe that it shall contain at least 35 per cent. protein. The great majority of so-called gluten flours and gluten foods sold in this country contain dangerously high percentages of carbohydrates. The manufacturers do their best to keep both physician and patient in ignorance of this fact. Accepting the exploiters' own figures—given grudgingly—the preparations on the American market contain the following amounts of carbohydrates: Brusson Gluten Bread 49.77 per cent., Farwell & Rhines Gluten Flour 46.05 per cent., Heintz Gluten (Glutin) Biscuit 51.64 per cent., Jireh Diabetic Biscuit 64.52 per cent., Jireh Flour 58.59 per cent., Jireh Bread 39.12 per cent., Bond Gluten Diabetic Flour 50 per cent., Piesser-Livingston Gluten Flour 44.30 per cent., Hoyt's Gum Gluten products 40.63 per cent. to 48.20 per cent., and Wilson Bros.' Gluten Flour 64.10 per cent. (*Jour. A. M. A.*, March 22, 1913, p. 922).

BOOK REVIEW

PROGRESSIVE MEDICINE. A quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica, Jefferson Medical College, Philadelphia. Assisted by Leighton F. Appleman, M.D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia. Vol. vi, No. 1, March, 1913.

This number contains an unusual collection of timely articles by authors of recognized ability and experience. Dr. Charles H. Frazier contributes an article on "The Surgery of the Head, Neck and Thorax"; Dr. John Rurah has an article on "Infectious Diseases"; Dr. Floyd M. Crandall writes on "Diseases of Children"; Dr. George B. Wood takes up "Rhinitis and Laryngology," and Arthur B. Duell discusses "Otology." A comprehensive index closes the volume.

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ORIGINAL ARTICLES

SPINAL ANESTHESIA IN GYNECOLOGY *

GEORGE GELLHORN, M.D.
ST. LOUIS

Spinal anesthesia has shared the fate of many new ideas in medicine which were at first ignored and later taken up with a zeal and enthusiasm that overstepped all lines of prudence and brought them into discredit. Thus, the discovery of Corning of New York, in 1885, of the possibility of injecting cocaine into the spinal canal for the purpose of producing analgesia, and his suggestion of applying this method in surgery remained unknown until Bier of Berlin, in 1899, independently found and applied the same method. Then, under the influence of Bier, and even more so that of Tuffier of Paris, spinal anesthesia was practiced extensively in this country and abroad; but the reckless manner in which strong solutions of cocaine were injected soon made itself felt in a large number of alarming complications during operation, such as collapse and even death, so that the pendulum swung backward and the original enthusiasm gave way to a profound scepticism. In the last eight years, however, many patient workers remained true to the sound principle of this new form of anesthesia and tried to eliminate the untoward effects of spinal anesthesia by perfecting the technic and substituting less dangerous drugs for the toxic and treacherous cocaine. As the result of their labors and their experience gained on many thousands of cases one may say confidently that spinal anesthesia has established a definite place for itself in surgery.

In presenting my personal observations to you, I am far from drawing any conclusions from so very small a material or from comparing it with the imposing series of cases reported by individuals and clinics both in Europe and America. This subject, however, has not figured on our

programs for some time past, if I am informed correctly, and I trust that my presentation will call forth a discussion and thereby show that there are really more friends of the method in our city than would appear from the paucity of publications.

Owing to the nature of my work, my remarks refer exclusively to the use of spinal anesthesia in gynecology, and we gynecologists should, indeed, be particularly grateful to the discoverers of the new method because the surgery of the pelvic organs, for topographic and anatomic reasons, is eminently benefited by spinal anesthesia.

Before entering into a more detailed discussion, there is a preliminary question which seems to suggest itself: Is there need of any new forms of anesthesia in addition to the established and routine methods of inhalation narcosis?

In answer to this perfectly legitimate question, I should like to remind you that we all were taught in medical school that the highest aim of the physician should be to consider his patient an entity unto itself and that a strict individualization should guide all our therapeutic efforts. We violate this fundamental principle if we operate on every case either under ether or chloroform, or indeed any one kind of anesthesia. Obviously, there must be patients who are not suited to the usual kind of narcosis. As far as ether narcosis which, after all, is the sovereign method of anesthesia in this country, is concerned, certain heart, kidney and pulmonary lesions contra-indicate its employment according to the consensus of opinion. Are there other contra-indications to ether narcosis, and would statistics on mortality and morbidity of ether narcoses definitely determine these questions? Unfortunately, there are no statistics extant which would tabulate the after-effects of ether, and as to mortality statistics, they are altogether unreliable. J. T. Gwathmey (*Jour. Am. Med. Assn.*, Nov. 23, 1912), in a very recent article, reports one death in 16,302 administrations from European statistics, and one death in 5,623 ether narcoses in this country. These figures are

*Read before the Medical Society of City Hospital Alumni, March 6, 1913.

obviously misleading. I believe there is more than one in this audience who knows of a death under ether which has never been reported. Moreover, the patient may survive the actual administration of ether on the operating-table and yet die from the ether as such a few minutes or hours later; and finally, the patient may not recover from the operation because his vitality has been reduced too much by the ether.

Such cases never appear in the mortality statistics, yet, they have stirred up all those operators who are not altogether guided by force of habit and immersed in routine, to the realization that there are more hidden dangers from inhalation narcosis, immediate or delayed, than is usually admitted, and that it is imperative for the progressive operator in the interest of his patient to familiarize himself with other means of inducing surgical anesthesia so that the individuality of a given case may receive just that kind of anesthesia which is best suited for it. My own modest statistics merely reflect the observations of men of wider practical experience. Of my last 200 private operations, most of which were major ones, I lost in all two cases. In both ether had been given as there had been no special contra-indication against inhalation narcosis. One of them was a very stout woman of about 55, with a large fibroid. She vomited blood repeatedly during the operation and died eight hours later during another attack of hematemesis. The other case was that of a young woman of 35, with bilateral tubo-ovarian tumors, who did not take the ether well; she showed a marked respiratory shock although ether was given by an expert. She died nine days after the operation from pneumonia and embolism. In the light of my present experience I feel that both these cases would have survived had I operated on them under spinal anesthesia. In 100 operations in the City Hospital and allied hospitals, all of which were major ones, I lost five cases. A sixth case in which on request of the internist in charge, an exploratory operation, practically without any narcosis, was done on a moribund woman, is left out. The higher percentage of mortality in hospital cases is explained by the generally inferior condition of these patients; they are "poor operative risks." Of these five cases, two had been operated on under ether. One of them, a gigantic elephantiasis vulvae, with pulmonary tuberculosis, died from the combined shock of ether and loss of blood. The other, a case of postoperative hernia with extensive adhesions everywhere in the abdominal cavity, and a weak heart, died two days after operation with symptoms of heart failure. Cases such as these two I would no longer feel justified to subject to operation unless it were done under spinal anesthesia.

A detailed discussion of the technic of spinal anesthesia as evolved by individual operators

seems superfluous before an audience which is familiar with the method of spinal puncture. I shall, therefore, limit myself to a very brief description of the particular method which I myself have adopted. The patient is prepared for the operation in the usual manner; her back is washed the day before and protected from accidental contamination by the clean binder which holds the abdominal dressings in place. She receives a dose of veronal the night preceding the operation to insure sound sleep. A hypodermic injection of morphin gr. 1/6 with atropin gr. 1/150 is given one-half hour before the operation. At the appointed hour the patient is placed in sitting posture bent forward as much as possible, and the lower part of her back is painted with iodine solution. The site for the injection is the space between the spinous processes of the third and fourth lumbar vertebrae. This place is easily found. An imaginary line connecting the crests of the iliac bones crosses the fourth spinous process. Many authors prefer the space between the second and third vertebrae. I, thus far, have found this higher injection unnecessary. The spinal cord, as a rule, terminates at the upper end of the second lumbar vertebra; it may, however, extend lower down, particularly in women; and in such an anomaly an injury to the cord itself seems possible. Below the termination of the cord, the nerve trunks, as is well known, are arranged in two large strands with a small intervening open space. It is into this free space that we wish to inject our anesthetic. The needle then is inserted immediately below the third spinous process and exactly in the median line. The injection through the skin and the strong interspinous ligament is slightly painful, and the patient must be warned to keep her position lest the needle is broken by the pressure of the spinous process during a sudden jerk. Then the needle is pushed in an inward and at the same time very slight upward direction until the arachnoidal sac is entered. Only a few drops of the cerebrospinal fluid are permitted to escape. The syringe previously filled with the anesthetizing solution is at once connected with the needle and the solution diluted in the syringe by drawing the cerebrospinal fluid into it. After a preliminary trial with stovain, I now use exclusively 2 c.c. of a 10 per cent. novocain solution to which 5 drops of a 1:1,000 solution of suprarenin are added. The diluted solution is then slowly injected into the spinal canal, the needle withdrawn, and the site of the injection quickly covered with gauze or cotton and sealed with collodium. The patient remains bent forward three more minutes and is then slowly laid down in dorsal position. The final disinfection of the abdomen, or in the case of a vaginal operation, the vulva and vagina, is attended to immediately, and the operation can begin at once.

I have not been able to convince myself that the specific gravity of the solution used has any influence on the result of the anesthesia. It has been claimed that a specifically heavier solution would anesthetize the lower parts of the body, while a lighter solution must be used when the analgesia is expected to extend above the umbilicus. In my work I have found the novocain solution to meet all requirements, considering the fact that I have but rarely occasion to invade the upper parts of the abdomen. Some operators lower the head of the patient immediately after the injection. I have found this to be unnecessary. Judging from observations made in foreign clinics, I fear the rapid introduction of the Trendelenburg position favors undesired effects, such as dyspnoea and collapse. A few minutes after the injection the patient may safely be put in Trendelenburg position.

The way in which spinal anesthesia affects the patient follows a certain order. She first notices that the feet feel heavy and "sleepy." The sense of pain becomes abolished first while the sense of touch as yet persists; then this sense, too, disappears. Gradually the recognition of differences of temperature, tendon reflexes and finally the mobility of the legs is lost. At last, the peritoneum loses its sensitiveness. The patients breathe quietly and regularly and the intestines are not pressed out of the wound. The abdominal walls relax completely so that abdominal retractors can be used without difficulty.

The analgesia lasts, as a rule, from one hour to one and one-half hours; in some of my cases it has lasted as long as two and one-half hours. Of the sensibilities to return, that of the peritoneum is the first; those of the other structures follow in quick succession. The analgesia lasts longest in the region of the external genitals.

In the manner described, I have done thus far forty operations. In this number are included one laparotomy, performed by Dr. Theo. Brookes, and one done by Dr. R. E. Hogan. Of these forty operations the records of the first twelve are lost. They were for the most part vaginal operations. There was no complication in any of them and the anesthesia was perfect in every instance.

Of the twenty-eight operations of which I possess accurate records, there were nineteen laparotomies and nine vaginal operations. Of the nineteen laparotomies nine were performed for inflammatory disease of the adnexa; five hysterectomies for fibroid; one hysterectomy for fibroid and pyosalpinx; two radical operations for cancer of the uterus; one operation for cancer of the ovary; one operation for postoperative hernia. Of the nine vaginal operations, five were radical hysterectomies for cancer; two hysterectomies for fibroid; one vaginal cesarean section; one operation for complete tear.

The age of the patients ranged between 19 and 62 years. Of the twenty-eight operations the

analgesia was altogether insufficient in one case, that of a complete tear of the perineum in a woman with exophthalmic goiter. This happened to be the first case on which I attempted to operate under spinal anesthesia. I used stovain for the first and only time, and the solution was apparently too weak. Two years later I performed vaginal cesarean section on the same patient. This time I injected the novocain solution and had a perfect result.

In another case the analgesia was imperfect so that ether had to be administered about one-half hour after starting the operation. This happened in a young woman of 28 with an advanced cancer of the cervix who was subjected to an extended vaginal hysterectomy. The cause of the failure was a faulty technic. The needle did not fit well on the nozzle of the syringe so that some of the cerebrospinal fluid and of the novocain solution was lost.

In the remaining twenty-six cases anesthesia was perfect. In three of these a few whiffs of ether had to be given; in one case at the beginning because of great nervous excitement of the patient; in the other two at the end of long and severe operations when the suturing of the abdominal walls was under way.

In the course of an otherwise perfect anesthesia patients occasionally complain of a slight pain when extensive adhesions are broken up. I have noticed such complaints more frequently during vaginal operations when the uterus is strongly pulled downward and the ligaments thereby stretched. In no instance, however, was this pain sufficiently great or lasting to require an additional anodyne.

We may, thus, sum up that in forty cases of spinal anesthesia there were but two failures which, in both instances, can be traced back to faults in the technic.

The insertion of the needle and injection of the solution are practically painless. Only in two of the earlier cases was a severe pain experienced which lightning-like radiated into one leg. In these cases the needle was obviously not inserted exactly in the median line and driven into one of the sacral nerves. In this connection I may point out that spinal injection like any other procedure requires practical experience and is, therefore, best left in the hands of one and the same man. I have personally attended to the injection in the last nineteen cases and I believe that with growing skill the procedure becomes proportionally easier.

The symptoms which may arise during the anesthesia require particular consideration. The most dreaded complication is that of collapse which figured so prominently in the earlier publications on spinal anesthesia. I have observed this collapse in one case, that of a stout and asthmatic woman with nephritis and a flabby heart in whom a vaginal hysterectomy was to be

performed. In this case a typical collapse occurred when the patient was brought from the sitting into the dorsal position even before the operation had commenced. An injection of strychnin and introduction of oxygen quickly revived her, and the operation was successfully and painlessly carried out. In another case, that of a poorly nourished prostitute whose vitality was greatly lowered, air hunger occurred twice in the course of a tedious operation of almost two hours' duration but it subsided without any treatment.

Vomiting took place in a large number of the cases, usually when the peritoneum was incised. This vomiting varied from simple retching to emesis of copious quantities of fluid but was never persistent.

The behavior of the patients after spinal anesthesia differs greatly from those operated on under ether narcosis. Compared with the latter class, they seem to be well almost from the very beginning, and nurses have repeatedly assured me that they are much easier taken care of. Nausea and vomiting occurs though not nearly as frequently and extensively as after ether. Intense and intractable headache which formerly was a regular sequel to spinal anesthesia has now disappeared altogether. I am inclined to believe that the freedom from headaches is due to two factors, namely: 1. The instruments for injection are now boiled in plain water instead of soda solution. 2. The cerebrospinal fluid is not permitted to escape so that the pressure within the spinal canal is not lowered. This view is further corroborated by the observation that patients from whom 6 to 10 c.c. of fluid are taken by lumbar puncture invariably suffer from severe headache.

Several of the patients had a rise in temperature after the operation. Whether or not this was caused by the spinal anesthesia, I am not prepared to say.

Backache lasting one or two days was noted in four cases: in two instances the bedside notes recorded numbness in the legs, and one patient complained of pain in her feet on the day following the operation.

A partial paralysis of the lower extremity, which, however, gradually subsided, was observed in one case mentioned above in which the needle must have entered one of the sacral nerves. One patient who had stood an abdominal hysterectomy for fibroid exceedingly well, developed a slight psychic disturbance during the next two days but eventually recovered completely.

As far as the psychic aspect of spinal anesthesia itself is concerned, there exists a widespread objection against having the patient conscious and watching the operation. This is based on the assumption that patients are fully apprehensive of what is going to happen. In reality, the patient's sensibilities are dulled by the injection of morphin and since no nerve

impulses reach the brain from the seat of operation, the patient is much less interested in the operative procedure than the surgeon himself. I can do no better than quote from a recent paper by Allen:¹ "The importance of maintaining a proper mental attitude in the patients cannot be overestimated. They should always receive a quieting dose of morphin or some other narcotic before coming to operation and should be encouraged and reassured as much as possible by the surgeon and his assistants. If spinal anesthesia is decided on, the best results are obtained by simply telling the patient that the method is the best one for his case and its advantages explained. It is a great mistake to consult the patient as to his preferences, as this shows at once the surgeon's lack of faith in the method and produces doubt in the patient's mind. The selection of the anesthetic should not be put up to the patient in any way, beyond saying, for example, that in his case spinal anesthesia is the first choice for safety, gas and oxygen second, and gas and ether third. The patients that do the very best are those who are simply taken from the ward to the operating-room, put on the table, injected and operated on with as few words as possible. They often believe the spinal puncture to be another hypodermic injection and seldom know when the operation has begun.

"During operation the demeanor of the surgeon and his assistants should be in accordance with the fact that the patient is not under a general anesthetic but is keenly conscious of what is going on. As a rule the company in an operating-room who are not used to operating under spinal anesthesia will either act exactly as if the patient were deeply under ether, or else will maintain a death-like and ominous silence, speaking only in 'sick-room whispers.' Neither of these methods is calculated to put the patient in the best frame of mind. The best plan is to act as naturally as possible, assuming that the patient is all right, and not disturbing him with questions as to his sensations or lack of them. If the patient is nervous or in a communicative mood it is a good plan to detail some agreeable nurse or assistant to sit by and act as mental anesthetist. But in most cases the patient appreciates being left alone and will often go to sleep during the operation."

There is, of course, no objection to giving the patient a few whiffs of ether in order to allay any nervous excitement that may mar the full success of spinal anesthesia. As regards the indications and contra-indications I have as yet not formed any definite views. I am not in sympathy with those who wish to substitute spinal anesthesia altogether for inhalation narcosis, for the principle of individualization would again be violated. Nor do I agree with a famous surgeon whom I saw perform scores of operations with spinal anesthesia but only on hospital cases.

1. Jour. A. M. A., 1912, Hx, No. 21, p. 1843.

while in his private patients he used ether. The list of operations given above affords a fairly good idea of the kind of cases in which I have applied spinal anesthesia. Very briefly said, I have used the method in all cases in which ether was clearly contra-indicated; furthermore in cases in which either the severity of the operation or the lowered vitality of the patient due to sickness or old age, rendered inhalation narcosis extremely hazardous. It can thus be seen that I have put spinal anesthesia to a particularly severe test in my cases, and yet I have lost but three out of forty cases. One of these was the case of uterine cancer where spinal anesthesia failed and ether had to be given. This patient died of shock. The other two died of sepsis; one a cancer of the uterus five days after operation; the other a huge myxomatous fibroid with most extensive adhesions two weeks after the operation.

The contra-indications as formulated by various authors are as follows: fever of unknown origin, sepsis, lesions of central nervous system, deformities of spinal column, syphilis, pressure points along the spinous processes which might indicate abnormal conditions within the arachnoidal sac, such as adhesions or lack of cerebrospinal fluid, arteriosclerosis, hysteria, great nervousness and prejudice against the method.

From this list syphilis may safely be removed for I have operated on a number of luetic patients under spinal anesthesia without the slightest disturbance.

I leave it to you to form your own conclusions as to the efficacy of this new method. Personally I feel that gynecologic surgery has been greatly enriched by the introduction of spinal anesthesia and that growing experience will enable us to give it its proper place among the means by which we can subject suffering humanity to surgical intervention.

LOCAL ANESTHESIA IN MINOR GYNECOLOGY*

S. J. WOLFERMANN, M.D.

ST. LOUIS

A fairly large proportion of cases admitted to the gynecologic service in the City Hospital are cases of incomplete abortion, mostly criminal abortions, performed either by the patient herself, by an ignorant midwife, or else an unscrupulous physician, and almost all present the familiar picture of a more or less pronounced infection, usually complicated by a marked anemia due to a profuse and protracted hemorrhage. The temperature ranges from 101 to 103 F. or more, and the pulse from 120 upward. The vulva is covered with a dark bloody and usually offensive discharge, and on bimanual examination the uterus is found enlarged, according to the duration of pregnancy, in doughy consistency and sensitive to pressure.

If such patients are subjected to a general narcosis in order to free the uterus from the retained products of gestation, an added strain is then exerted on the already lowered vitality of the patient and the postoperative condition has in many instances caused considerable anxiety, the patient requiring a great deal of artificial stimulation either by drugs or proctoclysis, and we have only too often been impressed with the fact that their convalescence is extremely slow. Therefore, acting on the suggestion of Dr. George Gellhorn, visiting gynecologist to the City Hospital, we have tried various methods of cleansing the infected uterus without resorting to a general anesthetic.

As a rule two general classes of cases present themselves. The first division comprises those cases in which the cervical canal and particularly the internal os, have become more or less dilated as a result of previous efforts of the uterus to expel the ovum. In this class of cases a hypodermic of one-fourth grain of morphin so dulls the sensibility of the patient that the introduction into the uterus of a finger or a curette causes little if any pain. The patient is prepared as in any vaginal operation and the cleansing of the uterus is then done under the usual aseptic and antiseptic precautions. During my service as resident assistant physician in the gynecologic service of Dr. Gellhorn, Drs. Heuer, Wolters and myself have in this manner cleansed the infected uterus in fourteen cases, all without pain or complaint from the patient.

The second class is of even greater importance, namely, those cases of abortion in which no dilatation of the cervix has taken place, and in which a part or all of the infected ovum is retained behind a contracted internal os. Here a simple hypodermic injection of morphin is altogether insufficient to perform curettage. A full dilatation of the internal os and cervical canal is of paramount importance. It must be remembered that the pregnant uterus is so soft that it is easily perforated by a sound or small curette, therefore all authorities insist that whenever curettes are used in the treatment of incomplete abortions, these curettes must be of the largest possible caliber to avoid the disastrous complication of a perforation. In addition such curettes must be used very gently for it is self-evident that in introducing a large curette through a relatively small internal os, one would necessarily use an undue amount of force; the curette might enter the uterine cavity with a sudden jerk and unintentionally cause perforation. Though sufficient dilatation of the cervical canal is a prime requisite for a satisfactory and safe curettage, the act of dilatation itself is a very painful procedure, because of the fact that the nerve supply of the uterus is most richly developed in the region of the internal os. This

*Read before the Medical Society of City Hospital Alumni, March 6, 1913.

difficulty is readily overcome by using a local anesthetic in the cervical tissue itself.

Since Schleich of Berlin, in 1894, introduced the principle of infiltration anesthesia into surgery, the method of local application of analgesic agents has become greatly perfected and a large number of publications and books have appeared both in this country and abroad, all of which teach us under what conditions we can best perform painless operations without the use of a general anesthetic. The latest work which takes up this subject in detail is from the pen of Dr. A. E. Hertzler of Kansas City. So far as his operations on the cervix are concerned, Hertzler injects small quantities of novocain or preferably quinin and ureahydrochlorid around the periphery of the cervix and into the broad ligament, blocking the nerves before or at their entrance into the tissue of the cervix proper. In our work we have used $\frac{1}{2}$ per cent. cocain, of which we injected 4 to 8 syringefuls of 1 c.c. each, deep into the substance of the cervix, and equally distributed about its circumference. The total amount of cocain given at any time did not exceed three-fifths of a grain. The technic as used by us is as follows: patient prepared as for usual vaginal operation, then placed in lithotomy position, having received a hypodermic of one-fourth morphin one-half hour previously. A speculum is then introduced into the vagina and the cervix grasped with a vulsellum. The application of the vulsellum causes a momentary pain which is felt severely by a nervous patient unless she is told beforehand just what to expect. The uterus is then gently pulled toward the vulvar orifice. Brisk downward traction must be avoided because a jerking or severe pull on the ligaments is unnecessarily painful. The vaginal portion of the cervix having appeared near the vulva it is painted with a solution of equal parts of tincture of iodine and 95 per cent. alcohol, and the cocain solution injected directly into the cervix by means of a small tight-fitting hypodermic syringe. These injections are practically painless because the lowermost part of the cervix, as is well known, has but few sensory nerve endings. Immediately after the injections have been made the anesthesia is sufficient to proceed with the operation. The cervix is slowly dilated with steel dilators to the desired width and the curettage performed in the approved manner. After the curettage the uterus is irrigated, preferably with a 50 per cent. alcohol solution and a narrow strip of iodoform gauze placed in the cervix and left there for twenty-four hours. In this way we operated on five cases, and during the following service Drs. J. A. Pringle, Ernst and Smith performed six additional cases in like manner. No untoward results were observed from the cocainization except in one case which I wish to give somewhat more in detail:

Patient, C. E., age 24, abortion induced by a midwife June 22, 1912. Patient entered the hospital Dec. 5, 1912, giving history of a bloody discharge for six weeks, with alternate chills and fever. She presented the general signs of sepsis, was very anemic, and on vaginal examination showed a profuse offensive sanguino-purulent discharge sufficient in amount to soil six to seven pads daily. Retained gestation products was diagnosed and curettage performed. Technic as given above was used, patient receiving exactly $\frac{3}{5}$ of a grain of cocain. She was returned to bed with a temperature of 98, pulse 100, respiration 22, and in good condition. Just fifty minutes later she became dizzy and weak; face became cyanotic, pulse jumped to 120, respiration to 36, temperature remained the same. She presented the general appearance of shock. Strychnin sulphate $\frac{1}{30}$ grain and atrophin sulphate $\frac{1}{100}$ grain given hypodermatically, and 10 minutes later pulse was again 80, respiration 22, temperature 98.6, general condition good except for slight nausea. These symptoms are those of cocain poisoning, and although the duration was extremely short, we are still inclined to blame the cocain. The possibility of an idiosyncrasy for cocain and the well-known toxicity of this drug make it advisable in the future to reduce the concentration of the solution used, or to substitute for it a less dangerous drug such as novocain, quinin and ureahydrochlorid, alypin and the like.

In addition to incomplete abortions, local anesthesia in the manner described opens a most promising field in minor operations on the cervix and body of the non-pregnant uterus. Trachelorrhaphies, discission of the cervix, dilatation of a stenosis of the internal os, curettage for chronic endometritis, or for exploratory purposes in cases of suspected malignancy, can all be done without pain and without any after-effects on the general organism. Our practical experience in this work has been very small thus far, but in analogy with the results published by many others, we believe that local anesthesia will eventually become the sovereign method in minor gynecology and in such cases do away with the well-known dangers and discomforts of a general narcosis.

THE MAKING OF "SPECIALISTS," WITH PARTICULAR REFERENCE TO OCULISTS (DOCTORS) AND OPTOMETRISTS (OPTICIANS)*

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In October, 1905, I read before the Northeast Kansas Medical Society a paper entitled "Glassfitting," comparing oculists and opticians.¹

*Read before the Eye, Ear, Nose and Throat Section of the Jackson County Medical Society (Kansas City, Mo.), March 13, 1913.

1. Glassfitting. John S. Weaver, M.D., Jour. Kan. Med. Society, March, 1906.

In April, 1910, I prepared for this section two papers in regard to this same question; one for presentation to the general practitioners (family physicians) and the other to the general public. The former, after being "de-horned," was printed in the *Bulletin* of the Jackson County Medical Society, April 22, 1910, and the latter was pigeon-holed.

In each of the three years since intervening, the optician-optometrists have presented to the Missouri Legislature a bill for their recognition as "Eye Sight Specialists" and it is only due to the energetic efforts of the Committee on Public Health and Legislation of the Missouri State Medical Association and the *JOURNAL* of the same association that these well planned efforts of the opticians to get a college degree by gift of the state legislature without having worked for it, have failed.^{2, 3}

In spite of the well meant resolutions of the national and various state medical societies and an attitude on our part of surprise and offense at their effrontery, the "Near-Oculists" have gone steadily on acquiring recognition until Massachusetts, in 1912, made the twenty-seventh state out of a possible forty-eight that had yielded to the persuasive arguments of the "Doctors" of Optometry.

Papers by Brown⁴ and Jackson⁵ and the *Bulletin* on Optometry of the American Medical Association⁶ are sufficiently illuminating for those who had the opportunity to read them but this information held within the profession is of no value in making an argument before a legislative committee.

In the following pages I have gathered together from various sources information in regard to the development of the practice of medicine and some of its collateral branches.

*Doctor*⁷ a title first applied during the twelfth century to teachers of civil law. During the fifteenth century the English universities applied it to law, theology and medicine. Its modern use includes dentistry, veterinary surgery and scientific degrees, such as doctor of philosophy, of science, etc.

The practice of medicine is too ancient a story^{8, 9} to be taken up here except to briefly refer to some professions and occupations that grew with it or out of it, such as dentistry, osteopathy, pharmacy, optometry and finally the subdivisions into the so-called "specialties."

Osteopathy⁷ (from the words meaning "bone" and "disease")—A system of prevention and cure

of disease without the use of drugs (or surgery). Principles formulated about 1874 and first school located at Kirksville, Mo., in 1892. The course now is three years. About three-fourths of the United States have legalized its practice. The medical profession classifies it with massage.

Pharmacy^{7, 8, 9}—In 1518 the physicians of London were incorporated, the barber-surgeons in 1540 and a number of irregular practitioners, some of whom kept shops (apothecaries), in 1543. The last named gained additional rights by Acts of 1617, 1703 and 1815 until a class of dispensing and prescribing druggist-doctors was formed which has no legalized parallel in the United States. During the seventeenth century the druggist came to America. The drug stores were usually a branch of the grocery or spice business and the druggists also practiced surgery. In 1646 the first distinctive drug store was opened by William Davis in Boston. Under the act of 1772 most of the drug stores were compelled to run under a license while general merchants were allowed to sell crude drugs.

*Dentistry*⁷—One hundred years ago dental operations were performed by ordinary doctors or by workmen. It was lawful for the barber and blacksmith to extract teeth and charge for it and for the jeweler to make artificial dentures. The number of dentists grew from about one hundred in this country in 1820 to about 39,000 in 1912. The first dental school in the world was established by two doctors in Baltimore in 1840. There are now about sixty to seventy live schools.

Having glanced rather briefly at the "side-lines" of medicine we find that the profession has undergone an expansion within itself. The requirements to begin the study of medicine rose from a grammar-school education to high-school education, and now to two years' college work and in some medical schools they require a four-year degree in science or arts. The study of medicine, which seventy-five or one hundred years ago meant two terms of about six months each, was increased about twenty years ago to four years of eight or nine months each. Laws covering these requirements have been passed in all states. The actual work itself has expanded so that the American Medical Association (organized in 1847) now numbering over 35,000 members, has divided into fifteen "specialties." The legitimate "specialists" to-day divide along four general lines: (a) regional: such as eye, nose and throat, skin, stomach; (b) method: such as x-ray, microscopy, general surgery; (c) age: diseases of children; (d) sex: diseases of women.

The oculist (or ophthalmologist) is only one of the fifteen specialists above alluded to. His was one of the earliest specialties.⁷ Boerhaave gave the first separate lectures on the eye in 1700. Dr. Kitchener wrote a book about 1825 in which

2. Editorials. *Jour. Missouri State Med. Assn.*, September, 1910, November, 1910, February, 1913.

3. Statement of the Committee on Optometry, St. Louis Medical Society, *Jour. Missouri State Med. Assn.*, February, 1911.

4. Optometry Legislation. E. V. L. Brown, M.D., *Ophthalmic Record*, September, 1907.

5. The Optometry Question and the Larger Issue Behind It. Edward Jackson, M.D., *Trans. Sec. Ophthal. A. M. A.*, 1911.

6. *Bulletin on Optometry*, A. M. A., Sept. 15, 1911.

7. *New International Encyclopedia*, 1912.

10. *Epitome of History of Medicine*. Park. 1899.

8. *Encyclopedia Britannica*, 1910.

9. *Druggists, Ancient and Modern*. Herzberg. Lippincott's Magazine, January, 1898.

the difference between oculists and opticians was pointed out. Helmholtz invented the ophthalmoscope about 1851 and this date marks the beginning of the study of the internal diseases of the eyeball. The first doctor in the United States to make the eye his exclusive specialty was Dr. Williams of Cincinnati (1822-1888). Courses on the eye can be taken by any physician in any postgraduate school in the United States.

Optics and Optician-Optometrists.^{1, 4, 5}—About nine hundred years ago the magnifying properties of a glass lense were discovered. About six hundred years ago spectacles were invented. About three hundred years ago the invention of printing made the use of glasses much more general. At first only convex glasses were used for reading; later, concave for near-sighted people. Lenses for astigmatism were invented in 1827 but were not generally used till after Donders' work in 1864. Frames for glasses were made by jewelers and the close connection between the two trades remains to this day.

Fifteen years ago the opticians were fitting glasses either for their customers or to fill the prescription of an oculist. They charged relatively large prices for the lenses and frames to make up for a "free examination." There were then (as now) street peddlers of glasses, and drug and other stores that kept stocks of glasses for selection. The optician found that, as a result of the general dissemination of knowledge by cheaper magazines and newspapers, the reading public was becoming a little more particular about the method of getting glasses and something had to be done to please or deceive it. Some very shrewd member of the craft concluded that a name that sounded like an eye doctor would be about the right thing; so he coined a word which was not in any standard dictionary,^{11, 12} and in Minnesota in 1901 we find the first legal mention of an "optometrist." Kansas in that same year passed its medical practice act and a powerful lobby forced a clause into the bill which allowed an optician to call himself "doctor of optics," a brand new college degree made to order by a state legislature. In 1903 California and North Dakota followed suit, and so by 1912 they "got" a total of twenty-seven states.

ARGUMENT

A circular letter sent to the attorneys general of the twenty-seven states elicited twenty-three replies. As to prosecutions for violations of these laws, no information was given by thirteen, seven had no prosecutions and three had noted prosecutions. So far as I am able to judge then, there have been prosecutions in only three states out of twenty-seven, and in some states the law had been in effect as long as twelve years. One claim made for these laws, among other things, was that the so-called "peddler" of glasses would be put

out of business. It seems as though scarcely any effort had been made to do that. In at least nine of the twenty-seven states the "peddler" loophole is supplied by a clause which states that if the seller (or "peddler") sells the glasses as "merchandise" or "does not claim particular skill," he can sell glasses without any penalty. In other words, a storekeeper may sell all the glasses he wants to, if he will tacitly admit that he doesn't know very much about fitting glasses. Easy, isn't it?

Further, ophthalmologists are justified in believing that there is a large element of deceit and trickery in the attitude of the "radical" optometrists because, while the latter get laws for registration through legislatures, by saying they want to protect the public from the "incompetent peddler" of glasses, the peddler still peddles; and, while endeavoring to ward off medical opposition by saying that they do not intend or pretend to practice medicine, some of them are even now talking about the time when they will amend their laws so as not only to allow them to use "drops" to refract but can treat diseased eyes by any system they care to employ. Questions in regard to diseases of the eye occurred in almost every optometry examination that has been held in recent years. Papers on disease of the eye are printed every month in optical journals, some of them borrowed bodily from oculist journals (carefully omitting the "M.D.," after the author's names) and others written by opticians. Any daily paper shows that opticians are putting diseases of eyes in their advertisements.

There is no room for doubt that the hope of the more radical group of opticians is to form a new profession of eye specialists who shall be called "doctors of optometry," or by a similar title, which profession shall bear the relation to general medicine that dentistry does to-day. I have been much interested in a recent paper by Crisp,¹³ which compares dentistry with optometry. Jackson⁶ has also mentioned this in his paper. He takes the stand that most of us do, that a doctor should be a graduate in general medicine before he specializes in eye. He proposed a fifth year of postgraduate work before one could qualify as an oculist or "Doctor of Ophthalmology," a title now bestowed at Oxford and Liverpool in England and at the University of Colorado in this country. Crisp mentions as an alternative an elective course in the last two years of medical study, to specialize in eye work.

So much stress has been laid on the "breaking away" of dentistry from medicine that I want to call attention to one thing that I do not believe has been mentioned so far. There is more ophthalmology taught in the course of general medicine to-day than there was of dentistry in 1840. Furthermore, when dentistry "broke away" from

11. Standard Dictionary, 1897.

12. Century Dictionary, 1902.

13. Dentistry and Optometry, A Parallel. W. H. Crisp. M.D., Ophthal. Record, January, 1913.

medicine, there was no postgraduate school to teach one dentistry after getting a medical degree. To-day, although we have no degree to show for it, the study of the eye can be carried out in any good postgraduate school for as long a period as one desires to stay. The refinements of diagnosis and treatment are there presented. Right here the analogy so cleverly drawn by the optometrists fails.

The question might be asked, "Is not the harm done by the peddler whose incompetence is recognized by the public, much less than that done by the optometrist when the public is led to believe that the latter is as well qualified for his work as the oculist?"

I have thought for many years that quite a few oculists are responsible for the misplaced confidence that many people have in opticians because patients are given a prescription for glasses to get them from some retail (or refracting) optician. They do not know that there is generally an understanding that the optician in exchange for this prescription business will send all his cases that he cannot fit (diseased or otherwise) to this oculist and that perhaps in some cases the oculist actually gets a money rebate for the work he sends the optician. I have felt that one reason why some of our oculists have been rather lukewarm on the subject of the regulation of optometrists, may be because of an alliance between them of some sort. For sixteen years my patients have known no one in the transaction of getting glasses except myself.

I have also felt for a long time that another reason why many people look on the optician as an oculist is because the refraction work of quite a few oculists is not very different from that of opticians.

With the idea of ascertaining the usual methods of refracting by oculists, I have made a personal canvass of the twenty-three members of this section who do eye work, with the results shown in table on this page. Figures "99" are to be taken as meaning no age limit.

Therefrom I draw the following inferences: All use atropin at some age. Five use it over 20, which is ignoring scopolamin and homatropin. Twenty use homatropin and three do not. Of these three, two are men that use atropin at all ages. Scopolamin is used by three and not by twenty. Twelve do not use any cycloplegic after 45; eighteen none after 50, and four use them up to any age.

Cocain was used only as an adjuvant or as a mydriatic for retinoscopy. There were no serious results noted from atropin or scopolamin. Four from homatropin were temporary. Two of these were glaucoma, one a third nerve paralysis (?) and the fourth a neurotic with pallor, delirium and intermittent heart. These few results are divided among twenty-three men with a total re-

fracting experience of 391 years (lowest 5, highest 35 and average 17).

Accommodation (Donders)		Use No Cycloplegic	
Age		Over age	
10	D.14	35	1
15	12	40	8
20	10	45	3
30	7	50	6
40	4.5	99	5
45	3.5		23
50	2.5		
55	1.5		
60	.5		
70	0.0		
Use Homatropin		Use Retinoscopy	
Age		Not at all	4
10 to 40	1	5 per cent. of cases..	1
15 to 40	6	10 per cent. of cases..	2
15 to 45	2	20 per cent. of cases..	2
15 to 99	2	30 per cent. of cases..	2
20 to 40	3	50 per cent. of cases..	4
20 to 50	3	100 per cent. of cases..	8
30 to 50	2		23
40 to 99	1		
Not at all	3		
	23		
Use Scopolamin		Use Ophthalmometer	
Age		Not at all	12
15 to 30	2	5 per cent. of cases..	3
15 to 99	1	10 per cent. of cases..	2
Not at all	20	20 per cent. of cases..	1
	23	100 per cent. of cases..	5
			23
Use Atropin		Use Mediaometer	
To age		Not at all	18
10	1	10 per cent. of cases..	1
15	11	50 per cent. of cases..	1
20	6	100 per cent. of cases..	3
40	3		23
99	2		
	23		

REFRACTING METHODS USED BY TWENTY-THREE DIFFERENT OCULISTS

I am rather disappointed to find only eight using retinoscopy in all cases, or conversely, fifteen that use it in less than half their cases and of these fifteen, four do not use it at all. Five men use the ophthalmometer in all cases and four men use the mediaometer in half their cases or more. I do not believe that either one of these instruments can be depended on for accurate results in over 5 per cent. of refraction cases. Opticians have to use the ophthalmometer as their only objective test. I do not believe that the twelve men who stop using all cycloplegics at 45 are familiar with Donders' old table which shows 3.5 diopter accommodation at that age for the normal eye. It would probably be higher yet for a far-sighted patient.

The medical profession has pretty generally fought optometry measures (though with indifferent success) because they have recognized that the optometry movement is just another one of the efforts like osteopathy to take a skilled occupation and turn it into a profession that has "doctor" gummed to it somewhere. We do not want in this country any more "half-doctors" or "near-doctors" of anything. The apothecaries of England, the osteopaths of this country and the midwives of both, are bad enough without a "doctor of optometry."

The time is coming, however, when the profession will have to define a "specialist" in a medical sense. Why not amend our state medical prae-

tice act so as to compel any "M.D." who in future wants to become a specialist in eye or any other line, to show first that he is registered as a physician and then that he has spent six months in continuous work in that line in some postgraduate school? Six months do not make a finished specialist any more than four years make a finished doctor, but it would be a start and the term could be lengthened later.

Last but not least, the public should have this information put before them in some way by the state or county societies.

If it is not done the legislators can always plead ignorance of conditions on their own part or on that of their constituents.

**JULIUS PAGEL AND THE PAGEL COLLECTION OF
BOOKS ON THE HISTORY OF MEDICINE IN
THE WASHINGTON UNIVERSITY
MEDICAL SCHOOL**

GEO. DOCK, M.D.
ST. LOUIS

A generous friend of Washington University, through the kind offices of Dr. W. E. Fischel, has given to the Medical Department the library of the late Professor Pagel. The collection is on its way to this country and will be catalogued and shelved in the temporary quarters in the Museum of Fine Arts, 1927 Locust Street, as soon as possible after its arrival. Some facts about the library may be interesting to many at this time. Its character and importance can best be understood by knowing something about the man who collected it.

Julius Pagel was born in Pomerania, May 29, 1851, and died Jan. 31, 1912. In the gymnasium of Stolp, where he had for a teacher the eminent Horace investigator, Hermann Schuetz, he distinguished himself by his scholarship in general and in linguistics in particular. He pursued his medical course wholly in Berlin, where he passed the state examination in 1876. His thesis for the doctorate was on an historical subject, viz., "The History of the University of Goettingen in the Eighteenth Century."

As an undergraduate he fell under the influence and notice of the great medical historian, August Hirsch, and did work for the latter on the "Biographisches Lexikon hervorragenden Aerzte," published by Hirsch & Gurlt. He continued to work for and with Hirsch, at the same time practicing medicine. In 1891 he was made docent in the history of medicine; in 1898, titular professor; in 1902, extraordinary professor without budget, following the notorious E. Schweninger, who was better known as Bismarck's physician than as professor or historiographer.

Pagel published more than one hundred books and articles on medical subjects, not including many notices and memoranda. A list of the larger works is given in the *Archiv für Geschichte der*

Medizin, May, 1912, vol. vi, p. 71. From 1889 until the time of his death Pagel wrote annually the historical chapter for the Virchow-Hirsch "Jahresbericht"; was a frequent writer in the historical periodical, "Janus," and contributed the chapters on history to several exhaustive works on various medical subjects. He was one of the founders, in 1906, of the Berlin Society of the History of Medicine and Biology, and was President of the Society at the time of his death.

Pagel was a man of admirable regularity of habits, and of great industry. His articles for the "Jahresbericht" were always ready on time and when he died the report for the year just ended was so complete that his children had only to get the Polish and Hungarian sections from the respective collaborators in order to send it to the printers. He did all of this work and at the same time carried on a more than ordinarily arduous practice, being physician to the Krankenkasse. It is a striking commentary on the organization of our present civilization that this man, so unusually endowed by nature and training to carry out special work of the greatest intellectual and social value, was obliged to snatch the time for such work, and this he did with the greatest cheerfulness, from days of unending toil in a very different line. A dissipated laborer, who would work only eight or ten hours a day, could call Pagel from his study at any time of the night to relieve a drunken attack or a stomach ache. It was the literary, human and sociological sides of medical history that appealed to Pagel, rather than the pathological and geographical interests that were so highly developed in his teacher, Hirsch. Many scores of titles in the collection illustrate this interest.

I am glad of an opportunity to include with this notice a memorandum kindly written by my friend, Dr. M. G. Seelig, who had the privilege of personal study with Pagel. Dr. Seelig writes:

"During the winter of 1902 and the spring and summer of 1903 I enjoyed the rare opportunity of a *privatissime* course in medical history under Julius Pagel. This course was not listed in the official regular, or Ferien catalogue, but learning from Professor Marchand of Leipzig of the possibility of working with Pagel, I interviewed him and, with difficulty, persuaded him of a real desire to see and hear about the original sources of medical history. He argued at length that his book on the subject contained all that he had to impart, and again that his more or less perfunctory course to the Militair-Aerzte would suffice my purpose; he specified why the history of medicine was in no sense of the word to be considered as a subject for dilettante study; finally, however, with evident strong mental reservation he agreed to give a two months' course of instruction for 100 marks with the privilege of refusal to go further, if he felt so disinclined at the end of that period, or of continuing the course on payment

of another 100 marks. He admitted later, that his sole objection to taking a pupil was, that never having had a similar application from an American, he felt assured, as he quaintly put it, that he could scarcely afford to run the risk of intimate contact with so distinct a type of "*rara avis*."

"It was finally agreed that I was to meet him at his home on Chaussee Strasse every Friday evening at 6 o'clock, and that at the first period he would discuss pre-Hippocratic and Hippocratic medicine. At the first meeting I was led into his study,—a room about twenty feet square, furnished more than severely plainly, and lined from floor to ceiling with open book shelves—where, on a large center kitchen table, he had laid out some thirty odd volumes—in Arabic, Greek, Latin and German—all dealing with that period of medical history under discussion for the day.

"Allowing practically no time for the formality of greeting or the doffing of coat and hat, he snappily clasped both hands behind his back and with an introductory: "To-day we begin with earliest times," he began to pace up and down the room, talking more rapidly than I had ever heard anyone talk before, in deep, well modulated, particularly pleasing, and yet withal, nervous staccato fashion, about prehistoric times. For an hour and a half he walked and talked without a moment's intermission, save to emphasize a point of interest, by demonstrating it in one of the volumes on the center table. Not much history was imbibed that first hour. It was impossible to concentrate on the subject in the presence of this mercurial little man, agile and mentally alert out of all proportion to the warrant of his low build and large bulk. His face, which, in repose I had judged as mirroring the soul of the slow, plodding German student, lit up indescribably. The angles and lines of a particularly sharp Grecian nose seemed to soften, and a pair of distinctly slit-like eyes opened wide and fairly radiated enthusiasm. The session over, there were a few questions and answers, and then an 'Au revoir bis Freitag.'

"And so, Friday after Friday the lessons went on. The technique was always the same; but as we advanced, the spirit of friendship and comradeship gradually established itself, and the lesson was preceded by dinner with Mrs. Pagel and the four children, and followed by an hour of general talk. And such talk! The rationality of religion, the philosophic basis of life, socialism, the value of the necessity to practice, American traits, the founding of universities, science and theology, and so on throughout a range from the highest to the lowest—even to bizarre and often questionable jokes. But all of this was either before or after the lesson; during the lesson there was only one subject on the tapis, and that was the history of medicine.

"The two months period carried us up to Vesalius. There was now no question of discontinuing the work. The instructor was willing and the pupil anxious to continue. There was just one hitch. Pagel had carefully considered the matter and had reached the conclusion that by no process of reasoning could he justify himself in accepting any more honorarium from one whom he now had reason to believe was truly interested in the history of medicine. He was obdurate against compromise and settlement was effected on his own terms. This too, despite the fact that an extra hundred marks meant much to him.

"The sureness of his knowledge of the most minute details of medical history was remarkable, even considering that he had made the subject a life long study; and his familiarity with his books was of the type that can be explained satisfactorily only on the basis of the combination of genius and instinct. He never used an index and yet he never failed to find the data he sought, after more than two or three page thumbings. His books were arranged two and three deep on the shelves; but if he were asked for a reference, he would wheel about, pause for a moment, like a pointer on a scent, and then, making directly for one of the shelves, he would reach blindly behind the front row of books, fish out the proper volume, and immediately turn to the desired page, taking care always to get rid of dust by vigorously blowing, while noisily clattering the book open and shut.

"His last five or six years were saddened by the death of his wife. Never a letter came that did not speak of an unconquerable sense of loneliness and sadness combined with a certainty of thought that though he felt physically well, his end was approaching. A ripening cataract served in some way to strengthen this conviction. His last letter, written in a happy congratulatory tone, ended with a plea to come to Berlin soon, if we expected to see him any more. Arteriosclerosis, he was sure, was rapidly sapping his energy, though he was still able to do his work. A few weeks after the receipt of this letter came the notice of his death from cerebral hemorrhage."

The Pagel library is representative of the collector. It is not a collection of rare books, such as appeal to the dilettante. There are, however, incidentally, at least two incunabula, a good many interesting autographs and a few *ex libris*. It is conspicuously the collection of an enthusiastic but frugal student and teacher of medical history, including the historical relations of medicine to human society, and so it contains many works suitable for and essential to the working and reference library of a medical school, and is complete enough and varied enough to form a valuable, even imposing, nucleus for a medical-historical seminary or institute. The catalogue contains about 2,500 items.

Some description of the main features may give an idea at least of the possibilities. There are some important examples of the great writers of antiquity. Of old imprints, before 1800, there is the beautifully printed Hippocrates, the "Opera Omnia," in Greek and Latin, of Van der Linden, Leyden, 1665; the sixth Venice edition, 1597, and the Basel, 1531, Galen; Krause's important edition of Celsus, Leipzig, 1766; Dioscorides in the rare Cologne edition of 1529, valued for the commentaries by Marcellus Virgilius; the excellent, 1567, edition by Rovillium of Paul of Aegina; the convenient, 1606, edition of Aristotle; the C. G. Gumpert edition, 1794, of the "Fragmenta" of Asclepiades of Bithynia; J. G. F. Franz's Leipzig, 1780, edition of Erotian.

Of the Arabian writers, the "Canon Medicinæ" of Avicenna is represented by the excellent but incomplete edition of Plempius, 1658, and the "Index" edited by Julius Palamedes, Venice, 1584; Maimonides by the Aphorisms, Basel, 1579; Mesue by the fine Venice "Opera," 1549; Rhazes by the "de Variolis et Morbillis," 1781.

While the foregoing are indispensable for a reference library, the collection of later editions is even more useful and is much more extensive. Some of the most important names and items are as follows:

Ebu Baithar; Abu Bekr; Abulcasis (Chirurgie, in the French translation of Leclerc); Hali Abbas; Avicenna, especially rich in diseases of the eye; Celsus in the editions of Daremberg, Védrenes and Scheller; Aetius; Dioscorides, in the editions of Berendes, 1902, and Wellman, Berlin, 1906; Galen in the editions of Kuelme, Helmreich, Daremberg, etc.; Maimonides; Hippocrates, in the important editions of Nauck, Fuchs, Grimm, Kuelewein, Littré and the indispensable Foës with its Prolegomena and references by Pierer; Oribasius by Bussemaker and Daremberg; Soranus, in Dietz' 1838 edition of the "de Arte Obstetrica," and many minor writers.

Medieval and later European writers are very largely represented. Conspicuous among these are: Bernard Gordon; Guy de Chauliac, including the Latin edition of Venice, 1519, and the Paris, 1890, edition of Nicaise; Arnold of Villanova; Prosper Alpinius; Ambroise Paré (first Latin edition of 1582); Sanctorius, "de Statica Medica," 1718; Richard Morton, "Opera Medica," 1737; Baglivi, "Opera," 1740; Barheus, investigator of bile and excrement and the discoverer of succinic acid; Bartholinus; Buchholz, physician and naturalist, one of the greatest compilers of the eighteenth century, but of mediocre talent; Brown; Boerhaave; Sylvius ("Opera Omnia," Venice, 1696); Erasmus, "Lob der Heilkunst"; Eustachius, "Tabulae Anatomicae," Amsterdam, 1722; Fabricius; Glanber, after whom the salt was named; Haller, including his most important works in bibliography and physiology; Harvey on the Circulation in the

1640 Rotterdam edition and Richet's Paris edition of 1879; Monardes on the Medicines of America in Stunzener's 1895 edition; Jenner; Van Helmont; Hoffmann; Malpighi, "Opera omnia," Leyden, 1687; Mayow; Morgagni, including the "Adversaria anatomica," 1723, the first (1761) edition of the "de Sedibus et Causis Morborum" and also the German translation of Koenigsdoerfer, 1771-76; Auenbrugger's "Inventum Novum" in Ungar's edition; Platner, "Institutiones chirurgiae"; Purman (military surgery), 1690; Ruysch's catalogue of anatomical and surgical curiosities, 1691; the erudite but credulous Daniel Sennert; Stahl; Sydenham's works in Kuhn's edition of 1827; van Swieten's commentaries, Latin and German; Stoll; Tulpins' "Observationes medicae," 1716; Werlhof, "Opera medica," 1775, and several other works; the celebrated book on Midwifery by Justin Siegmundin, Berlin, 1756; Redus, one of the earliest to interest himself in the relation of insects to disease. There is an "Articella" of Leyden, 1534, an example of the compends so characteristic of early medieval medicine, and there is promise of interesting matter in a "Philoneum aureum" of Valescus of Taranta, 1526, and a "Secretae sublinia" of Varignana of the same year, bound together in stamped leather. The "Metoposcopia" of Jerome Cardan should also be mentioned.

Many of the most desirable works on the history of medicine are included. Among these may be mentioned the names of Freind, Sprengel, Leclerc, Daremberg, Baas, Neuburger, Haeser, Payne, Aug. Hirsch, Hyrtl, Isensee, Morwitz, Packard, Puschmann, Schwalbe, Aschoff, Schmiedlein (1777), Töpler, Moehsen, J. H. Schulz' unfinished work, ending with the introduction of Greek medicine into Rome; N. S. Davis, Roswell Park and Wunderlich.

Equally rich and representative are the works on biography and bibliography. Some of these are indispensable in libraries, and are becoming rare and expensive. Among them may be mentioned: Adam, the rare "Vita Germanorum medicorum," Heidelberg, 1620, Eloy, Dezeimeris, Ollivier and Raige-Delorme, Diels, Jourdain, Kestner, Van der Linden ("de scriptis medicis," 1686); Choulant; Hirsch & Gurlt, Engelmann, Haller, Plouquet, Rohlf, Callison, Bloch (Syphilis); Proksch (Venereal Diseases); Fasbender (Obstetrics); Siebold (Obstetrics); Foster (Physiology); Huber (Medical Entomology and Helminthology); Behla (Carcinoma); Hoffa (Orthopedics); Weissbein (Sports); Hirschberg (Ophthalmology), and others on Dentistry, Pharmacology, Surgery, Bacteriology, Balneology and Nursing. Sudhoff, the Paracelsus specialist, is fully represented. There is a great deal about Semmelweis; there is the biography of Johann Weyer, the great opponent of the delusion of witchcraft, by Binz, Merkel's delightful Life of Jacob Henle and Osler's Linaere, Mon-

falcon, Boerner, Pauly and Györy, the historian of the diseases of Hungary, may also be mentioned.

Letters and Autobiography are represented by Arlt, Billroth, Koch, Hasse, Gegenbauer, Koelliker, Virchow, A. Von Graefe, Sonderegger, Stromeyer and von Leyden.

There are a great many lexicons, from the first Latin medical lexicon by Barthelémy Castellus, in the best edition, Geneva, 1746, down to recent works. There are many sets and partial sets of journals on medical history and the history of civilization, including the three series of "Janus," a very large and rich collection of lectures, addresses and essays on medicine in all of its departments including the medical profession, and on sociology in its relation to medicine, public morals and alcohol, and considerable material on biology, especially in its historic relations. Art in medicine is represented by the works of Holländer, Richer and the Christiania, 1911, edition of the anatomic drawings by Leonardo da Vinci in Windsor Castle; ethics by the works of Moll, Pagel and many others. There is a fairly large collection of practical works on and in various disciplines, some of them rare, and many useful reports and "Festschriften." The collection of catalogues of medical libraries is rich and valuable. A very large collection of reprints and clippings is devoted to the history of medicine in Berlin. There is a small, but good collection of portraits, and a large collection of reprints in all branches of medicine.

The liberal policy of the authorities has already provided a large and valuable collection of complete sets of journals, handbooks, encyclopedias, monographs and other works of reference, and has laid out a generous and farseeing policy for the development of these essential lines. The Pagel Library provides an equally essential part of medical literature, such as every university medical school should possess or have accessible, a part that takes years to acquire in the usual channels of trade and is rapidly becoming more difficult and more costly to acquire. The timeliness of the assistance in this instance adds much to its value.

1806 Locust Street.

THE NEED FOR STATE CARE OF CRIPPLED CHILDREN AND THE ADVANTAGES OF THE SYSTEM

DOUGLAS C. MCMURTRIE
NEW YORK

It can hardly be denied that the crippled child is in need of more than surgical attention. This is available in practically every community through the medium of the local hospital, but experience has shown that such provision alone is not adequate to the requirements of deformed

children. In the first place permanent orthopedic improvement or care is usually slow and requires not only treatment over a long period but considerable special equipment. The average hospital, by reason of excessive demands on its capacity, is not in a position to receive chronic cases which would entail residence of a year or more. Even if they could receive them they would hardly be able to give the care which would be afforded by the facilities of a special institution. The physician in a case of serious orthopedic difficulty generally recommends the patient's going for treatment to a special hospital, often in a distant city. It is unnecessary to comment on how impracticable such a course is usually found.

The special hospital—even this does not entirely solve the problem. There are in this country several orthopedic and children's hospitals offering excellent surgical treatment to the cripple but no educational advantages. We thus frequently see children who have spent in a hospital the most critical years of what should be their school life, and through their lack of education are seriously hampered in their efforts toward self-support—efforts perhaps already handicapped by a physical deformity. To such cripples a good education and training is of paramount importance.

From this brief consideration we can deduce the two essentials of provision for crippled children—adequate orthopedic facilities and educational training during the period of treatment.

The proper orthopedic facilities can of course best be met by a special institution for crippled children. The surgical details are well known and do not require description here. Owing to the large proportion of tubercular joint cases it is desirable that such an institution have ample ground about it so as to give opportunity for the patients to be out of doors. If located in the country, however, it should be near enough to a large city in order to secure expert operative assistance when necessary.

In such an institution not only should the regular subjects of primary education be taught but industrial training should be provided as well. Such training would be in subjects specially adapted to the capacities and handicaps of the crippled pupils.

With this idea of the requisite essentials of care it may be well to consider the provision that four states have made for their crippled children. It is interesting to note that the institutions which will be described are the only ones in the world founded entirely by legislative initiative and maintained at public expense. The system thus constitutes an experiment—though a successful one—unique to the United States.

Minnesota was the first state to found a state institution for cripples. The State Hospital for Indigent, Crippled and Deformed Children was established by the legislature in 1897 and has

been largely fathered by Dr. Arthur J. Gillette. It is located at St. Paul and has a country branch at Phalen Park. A school is maintained and educational facilities are provided for the children. Some industrial work is done.

New York State established in 1900 the "New York State Hospital for the Care of Crippled and Deformed Children." It is located at West Haverstraw. Dr. Newton M. Shaffer is the chief surgeon. Crippled children from four to sixteen years of age are admitted. Elementary instruction is given to those children who are well enough to profit by it. The institution is, however, more of a hospital than a home. The average length of residence is a year and a half.

The State of Nebraska established in 1905 the Nebraska Orthopedic Hospital at Lincoln. The surgeons are Drs. J. P. Lord and H. Winnett Orr. It accommodates sixty patients. In addition to the hospital equipment there is a schoolroom. Four teachers are employed. Elementary subjects such as cooking, sewing and bookbinding are taught. It is interesting to note that this is the first institution which provided for the compensation of attending medical officers so that they might without compunction give to the work as much time as was required.

In Massachusetts there was undertaken a state census of crippled children and even a superficial investigation brought to light three hundred such children in need of care by a state institution. There was established in 1907 at Canton, Massachusetts the Massachusetts Hospital School. This is a fine modern institution with every advantage of location and equipment. The capacity was made 300 so as to meet future needs. At present there are about 150 children in the school. The school offers various forms of industrial training so that the children may be fitted to be self-supporting. As the school is still new and most of the children young the final forms of this industrial training have not been worked out, it being felt that the education must be adapted to the labor conditions of the community. At present the children are furnished a primary school education and in addition, instruction in sewing, sloyd and elementary carpentry. Opportunities for instruction in cobbling and simple farm work are furnished. The spirit of this institution is excellent. The children are encouraged to engage in all sorts of outdoor games in which they take the greatest interest. As carrying out the idea of the work I would call attention to the name of the institution, "Massachusetts Hospital School," as being much more desirable than, for instance, "State Asylum for the Crippled."

Other states have given some attention to cripples. The experience of Ohio is nothing short of tragic. In 1906 the state legislature passed an act providing for the treatment and education of cripples and deformed children. A commission was appointed for the purpose of preparing plans

and selecting a site, and an appropriation of fifty-thousand dollars was made. The commission failed to act within two years and the amount appropriated was no longer available.

The State of Kansas cares for some cripples at the state asylum at Atchison. The Oklahoma State Board of Charities is preparing to establish a cripples' colony. According to the State Commissioner of Charities, Kate Barnard, the state is overrun by adult cripples who flock to it as beggars. In the proposed colony they would be compelled to work or learn a trade. It is planned to make provision later for crippled children.

If I may be permitted a digression I should like to make reference to the work of the New York Orthopedic Hospital which maintains a city hospital in New York and a country branch and industrial home at White Plains, which is about forty-five minutes out of the city. This work, although run under private auspices, has many elements of suggestive value for a state institution. I imagine that the new branch of the Minnesota institution will develop along much the same lines. As I am not personally familiar with their recent work I will describe several details of the New York institution.

Any cases which require operative treatment or are acute are sent to the city hospital. And all other cases go there first for observation and diagnosis. After the operation, or if the case is a tubercular one needing fresh air treatment, the patients are sent to the White Plains home where they are provided with a regular school education and industrial training along various lines, such as wood work, machine work, laundry work, etc.

The state institution has many points of advantage. In the first place it can take crippled children who would otherwise be deprived of all advantages and by giving them proper care and treatment can make of them capable and self-supporting citizens. The accomplishment of such work is of definite economic advantage to the community and from a utilitarian standpoint alone would be desirable. For children living in the country some such institution is almost imperative if they are to receive any care and the experience of the state institutions has shown that such children are most urgently in need of their attention. City children have the benefit of many hospital facilities, country children are deprived entirely of such opportunity.

Furthermore, the principle of supplying the necessary care and education for the handicapped members of the community at the state's expense is sound and from a social point of view, infinitely more desirable than the dole of private charity, estimable as this may be. My contention is that crippled children are as much entitled to educational provision by the community as the normal child who can go to the public school, and we are

coming to realize this more and more in various lines.

The frank purpose of this article is to stimulate an interest in the crippled children in the state of Missouri and to encourage, if possible, the inauguration of some work in their behalf by the state as a whole. There are, of course, good hospital facilities such as furnished by the St. Louis Children's Hospital, but as I have attempted to show earlier in the article, I do not feel that such institutions can meet the educational needs.

There is one encouraging thing, however. The locality from which I have recently heard most regarding new interest in crippled children is Missouri. One instance of this is the recent consideration by the St. Louis Medical Society of the needs of defective children. I trust that this interest may bear fruit, not only in the city of St. Louis, but throughout the state as well.

A little effort toward the foundation of a state institution bears fruit over a long period because if once the legislature can be persuaded to establish such work its support in the future automatically devolves upon the public treasury. Such work is sorely needed and it is my earnest hope that Missouri may at some early date take her place among the few states of the Union offering a fair opportunity to her crippled children.

Metropolitan Tower.

TINCTURE OF IODIN IN THE TREATMENT OF FRESH WOUNDS

T. G. ORR, M.D.
NEW YORK

In speaking of iodine, Nicholas Senn¹ has said: "It is the most potent and least harmful and most reliable of known antiseptics, and this renders it a very valuable agent in aseptic and antiseptic surgery."

In the past few years much has been written on various preparations of iodine as antiseptics and germicides. Salisbury,² in a study of the pharmacology of iodine, states that it is essentially an irritant which destroys the cell, combining with its protein constituents and provoking a reactive inflammation on the part of the tissue less violently affected. The irritation of the deeper tissues develops rather slowly, producing inflammatory changes which result in the throwing off of cells destroyed by the iodine and replacing them by new formed tissue. Iodine also appears to be somewhat astringent, drying and puckering the tissues to which it is applied. The hyperemia produced plays a very similar part to the hyperemia induced by the method of Bier in the treatment of inflammations and infections.

Reclus³ says the tincture of iodine does not activate the phenomenon of repair; it rather retards the proliferation of the anatomical elements, or even attacks the protoplasm to some extent. But it protects the tissue against the multiplication and migration of germs and by this fact alone the wound gains more than it loses by others. He adds that one thing is essential, the tincture must be new. At the end of eight days it should be disqualified as very old. It loses little by little some of its qualities and even becomes offensive to the tissues. It is Woodbury's⁴ opinion that when tincture of iodine is used properly it will overwhelm the germs *in situ* and stimulate phagocytosis, Nature's own antiseptic.

Walther⁵ has reported some interesting experiments in testing the penetrating power of iodine. He made sections of the skin at varying lengths of time after painting it with the tincture of iodine and treated them with silver nitrate. The iodine forms a precipitate with the silver which is insoluble in alcohol. This enabled the depths of its penetration into the skin to be studied with accuracy under the microscope. His results show that in less than seven minutes the iodine deposited upon the epidermis sterilizes the deepest layers of the skin. Portions of the skin removed and inoculated into bouillon did not give a growth.

The stimulus came for much literature on iodine when Grossich⁶ published a paper in 1908 describing a new method of skin sterilization with tincture of iodine. The greater number of publications since then have dealt chiefly with skin sterilization. Grossich used the tincture first in the treatment of fresh wounds. His splendid results led him later to try it in the preparation of the field of operation. A paragraph from his communication well sums up the technic and results of his wound treatment. "In such cases (wounds of scalp, neck, axilla, scrotum, fingers and toes), following a thought suggested to me by the procedure of other operators who had used tincture of iodine on the site of the incision after the usual cleansing, I painted the skin around a large open lacerated wound with the tincture of iodine alone, without washing, sewed up the wound completely, painted the suture line with the tincture and put on the usual sterile dressing. It healed by first intention. A second, a third and a tenth treated in the same manner healed just as beautifully as did the first. Since then my assistants and I have generally used the method. After shaving dry we paint about the wound with the tincture of iodine and repeat the painting after the wound is closed. The result has always been a clean *prima intentio*, without the slightest trace of redness, swelling, pus or rise

3. Reclus, P.: Bull. de l'Acad. de méd., Paris, 1910, lxiif, 3rd series, 375.

4. Woodbury: New York Med. Jour., Feb. 11, 1911, xciiif, 265.

5. Walther, Bull. et mem. de la soc. de chir., March 16, 1909, p. 345.

6. Grossich, A.: Ztschr. f. Chir., Oct. 31, 1908, xxxv, 1289.

1. Quoted from Dvorak.

2. Salisbury, J. H.: Jour. A. M. A., June 11, 1910, liv, 1935.

in temperature. These results were constant, even if the wounds remained untreated several hours or even days; the cleanest healing always resulting if there was not an already existing inflammation, indicated by redness and swelling. It is to be noted that almost all of the patients came from the harbor or factory where about 20,000 workmen of all races and nationalities are employed and most of whom are not of the cleanest type."

Since 1908 several men have reported the use of iodine in treatment of various kinds of wounds, with uniformly good results. Among these may be mentioned Dannreuther,⁷ Reclus, and Dvorak. After thorough shaving and washing with green soap and water, Dannreuther applies the tincture directly to open wounds and in deep wounds injects the iodine with a medicine dropper. Reclus paints the tincture about and in the wound without previous preparation. He decries any preparation of the wound before the application of the iodine as not only useless but harmful in that pathogenic germs are disseminated and moisture of the skin prevents the penetration of the iodine thus weakening its action. Dvorak⁸ uses 10 per cent. tincture in contused, lacerated and incised wounds of the fingers and hands, scalp wounds and amputations of fingers and toes.

The value of the tincture of iodine as a skin and wound antiseptic is probably due to its penetrating power, to its dehydration property, and to its production of hyperemia, which stimulates the reaction of the tissues against infection. As a germicide for the ordinary forms of bacteria it well deserves the recommendation given to it by Senn. The experiments of Post and Nicoll show well its rank as a germicide in the test-tube. They found that the U. S. P. tincture of iodine would kill streptococcus, pneumococcus, gonococcus, and *Bacillus typhosus* in less than one minute.

For the past eighteen months, while on the house staff at the New York Hospital (House of Relief), I have used the U. S. P. tincture of iodine in the treatment of fresh wounds, in the dispensary, on the ambulance and in the hospital. During this time I have treated nearly one thousand patients with incised, lacerated and contused wounds, dogbite, compound fractures, traumatic amputations, etc., with excellent results.

The more simple the technic used the better. If the area about the wound needs shaving it should be shaved dry. Any loose tags of tissue or skin or foreign body should be removed with sterile instruments and not washed out. No water or watery solution should touch the wound. The tincture of iodine is first painted about the wound and allowed to dry for a short time giving opportunity for penetration. Then with another

bit of sterile cotton on a toothpick the wound itself is painted thoroughly. Dannreuther's method of injecting the deeper recesses of a wound with a medicine dropper is a good one but should not be depended on entirely in cases of puncture wound where there is a liability of tetanus infection. A sterile compress is then held firmly over the wound, if it is small, until hemorrhage is stopped, and a sufficient number of sutures applied to approximate the edges of the wound when indicated. In the large lacerated wounds the iodine may be poured into the wound after painting a free area about it. Drainage should, of course, be used when indicated, especially in the badly contused lacerated wounds where there is apt to be much oozing and the resistance of the tissues is much below par.

In traumatic surgery the tincture of iodine seems to me to be the best of all antiseptics. It is handy, reliable, easily applied and acts quickly. There is no bother about making up solutions, washing, scrubbing or irrigating. It is ideal where rapid work is necessary, as in large dispensaries, on the ambulance and on the battlefield. For the country practitioner it is infinitely more convenient and reliable than any antiseptic solution. In the Russo-Japanese war the use of iodine in the emergency treatment of wounds no doubt had much to do with preserving such a low mortality.

I feel that the tincture of iodine should be recommended in the text-books and be more widely used in the treatment of fresh wounds of all kinds, and especially commend its use to the country practitioner and to those who must treat a large series of patients rapidly as in a dispensary or on a busy ambulance.

405 West Thirty-Fourth Street.

HISTORY OF THE CASS COUNTY MEDICAL SOCIETY*

FIRST DECADE, ENDING DEC. 12, 1912

J. S. TRIPLETT, M.D.

HARRISONVILLE, MO.

As this meeting marks the tenth anniversary of the organization of the Cass County Medical Society, the committee on program thought it appropriate to review the history of its first decade; and as I have been assigned this duty, I will endeavor, as best I may, to set forth such facts and events as may seem of interest and importance. Before taking up its history proper it may be of interest to state the purpose of such an organization.

"The purposes of this society shall be to bring into the organization the physicians of Cass County, so that by frequent meetings and full and frank interchange of views they may secure

7. Dannreuther, W. T.: Med. Rec., Jan. 25, 1908, lxxiii, 142; Med. Rec., Jan. 16, 1909, lxxv, 99.

8. Dvorak, M. W.: Wisconsin Med. Jour., November, 1910, ix, 319.

*Read at the 10th Anniversary of the Cass County Medical Society, Dec. 12, 1912.

such intelligent unity and harmony in every phase of their labor as will elevate and make effective the opinions of the profession in all scientific, legislative, public health and social affairs, to the end that the profession may receive that respect and support within its own ranks and from the community to which its honorable history and great achievements entitle it; and with other county societies to form the Missouri State Medical Association, and through it with other state associations, to form and maintain the American Medical Association." (Article II, Constitution.)

With this worthy and noble purpose, the organized medical profession stands for the advancement of medical science; limiting and controlling the spread of disease; alleviating human suffering; prolonging human life; protecting the unsuspecting public against illegal practitioners, quacks and the nostrum evil.

The initiative and preliminary steps to organization were taken by Dr. M. P. Overholser and myself when we sent a circular letter to the practicing physicians of Cass County requesting their opinion as to the advisability of taking such steps. Most of the physicians thus addressed expressed themselves as heartily in favor of such a movement. Receiving these encouraging replies, we issued a call to the physicians of the county for a meeting to be held at Harrisonville, Nov. 6, 1902, for the purpose of organizing a county medical society.

Pursuant to this call, the physicians named below as charter members, met in the court room at Harrisonville, Nov. 6, 1902, and organized a county medical society, which, according to my best information, was the first county medical society organized in Cass County. Dr. H. Jerard of Pleasant Hill, who has been familiar with the medical affairs of Cass County since 1875, says that prior to the present organization, a county medical society was organized on two separate occasions; but for lack of interest among the physicians and of state encouragement, they were short-lived, and soon discontinued, leaving no records of their existence.

This meeting was called to order by Dr. M. P. Overholser; Dr. H. Jerard was elected temporary chairman and Dr. J. S. Triplett temporary secretary.

The object of the meeting was stated by the chairman, after which a paper on "Medical Organization" was read by Dr. M. P. Overholser.

A constitution and by-laws, as recommended by the American Medical Association and the Missouri State Medical Association for county societies, was adopted.

It will thus be seen that the physicians of Cass County became organized soon after the nation-wide movement for county organization was begun in an earnest and systematic manner

by the American Medical Association, which was in 1901, at its St. Paul meeting.

The charter members were: T. W. Adair, A. R. Elder, G. W. Farrow, H. Jerard, R. D. Ramey, Ira Smith, D. H. Webster, W. H. Barrett, F. B. Ellis, A. D. Farnsworth, M. P. Overholser, J. U. Scott, B. B. Tout, W. F. Chaffin, G. E. Elley, W. R. Jenkins, W. C. Palmer, J. S. Strother, J. S. Triplett, D. H. Webster.

Of these, five have died, viz., Drs. Barrett, Elley, Smith, Jenkins and Webster; and three have removed from the county, viz., Drs. Palmer, Strother and Farrow. Dr. Overholser has been absent from the county for about two years, but expects to return in January, 1913.

The officers of the society are, a president, vice-president, secretary-treasurer and a delegate.

In addition to these officers there are three committees subserving important duties in the society, viz., a board of censors, a standing committee on program and scientific work and a committee on public health and legislation.

The annual dues are \$3, which cover membership fees in the county and state bodies and the yearly subscription to THE JOURNAL of the Missouri State Medical Association.

The society held quarterly meetings until June 1, 1905, when it met monthly until Sept. 7, 1905, since when it has met bi-monthly.

Harrisonville having the advantages of a central location and good railroad facilities has been the place of its meetings, except on March 8, 1906, when it met at Belton, and May 2, 1907, at Pleasant Hill.

Sessions have been held in a designated room of the county court house in the afternoon of meeting days. Our county judges have been kind and liberal in allowing the use of this room gratis.

As a rule, the members are keenly enough interested in the welfare of the society to prepare papers, or perform any other assigned duty for its meeting, hence its sessions have all been interesting and profitable. The almost universal verdict at the close of a session is—"Well, we had a good meeting and I am glad that I came."

An average in membership of about thirty, sometimes more, sometimes less, has been maintained, there being five to ten eligible and desirable physicians in the county not in affiliation.

The society early adopted the plan of publishing an account of its meeting and the names of those in attendance, in the county newspapers; this is done by the secretary, who acts as reporter. The idea is to give general publicity to the objects of society work and those who are most active in its work.

Besides the reading and discussion of papers, it is exceptional that a meeting passes without some one reciting a case history from his practice, presents a clinic or demonstrates a pathologic specimen.

September 1, 1904, the society decided to make the quiz a part of each program. The quiz, which covered a wide and varied field and was productive of much good in that it offered an incentive to refresh the memory on forgotten subjects, continued until Dec. 9, 1909, when it was replaced by the "Post-Graduate Course of Study," as outlined in *The Journal of the American Medical Association*, by Dr. J. H. Blackburn of Kentucky. This, in turn, was discontinued Jan. 1, 1911.

The society has done some creditable work in safeguarding the public against quacks and illegal practitioners, one of which I wish to mention in particular.

One, "Dr." G. S. McClary of Kansas City, Mo., a self-styled pile specialist, was doing a lucrative business in the county. He had not registered his name with the county clerk, and was, therefore, an illegal practitioner in the county. The reason he had not registered in the county was that he did not possess a state certificate, which the state board of health for good and sufficient reasons had refused to issue. Dec. 1, 1904, the society passed a resolution to prosecute illegal practitioners and was instrumental in causing the arrest of McClary. His case was set for trial, but for some reason or other was continued. McClary succeeded in getting several continuances. Dec. 7, 1905, the society resolved to notify the prosecuting attorney, through a committee, to bring the case of McClary to trial without further continuance, but his trial still "continued to be continued."

The society was not yet ready to give up the fight, so Nov. 1, 1906, a committee composed of Drs. Crawford, Overholser and Triplett was appointed to employ an attorney to assist the county prosecutor in this case. This committee employed Mr. W. D. Summers as the society's attorney, paying him \$25 from a fund raised by the members for this special purpose. McClary's case was finally brought to trial at which he was convicted and sentenced to a fine, which he paid, but not, however, until a change had been made in the prosecuting attorney's office.

Our society was thus instrumental in ridding the county of this illegal practitioner, but, sad to state, McClary, at a later date brought mandamus proceedings against the State Board of Health in a higher court, which ordered the board to issue him a state certificate.

At the meeting of Dec. 7, 1905, the society extended a vote of thanks to Dr. H. Jerard for his efforts in causing the arrest, prosecution and fine of J. T. Davis, a so-called doctor, for practicing medicine illegally at Pleasant Hill. His sentence was served out in the county jail.

A resolution was adopted on Dec. 7, 1905, introduced by Dr. H. S. Crawford, indorsing *Collier's Weekly* and *The Ladies Home Journal* in their fight on the nostrum evil.

A resolution was adopted Dec. 7, 1905, introduced by Dr. J. S. Triplett, asking the Publication Committee to admit no advertisements to the pages of *THE JOURNAL* of the Missouri State Medical Association not in conformity with the recommendations of the Council on Pharmacy and Chemistry of the American Medical Association.

The secretary, Dr. W. F. Chaffin, records in the minutes of the meetings of Sept. 6, 1906, "That the social, kindly, professional feeling among our members was becoming more manifest with each gathering."

January 2, 1908, the society adopted a fee bill. Many visitors, professional and lay, have at various times attended and participated in the meetings, to which they are welcome at all times.

In May, 1909, Dr. J. N. McCormack of Kentucky, the national organizer, addressed a large and appreciative audience on a Sunday evening at the court room at Harrisonville; the ministers of the several churches dismissed their congregations to attend the lecture.

August 4, 1910, the question of establishing a public hospital at Harrisonville was discussed, and a committee was appointed to investigate the matter. At the next meeting, Dec. 1, 1910, the committee reported and advised that some organization other than the county medical society take up the proposition. The committee was discharged and the matter has not been revived.

The society occasionally enjoys a social function. On the evening of Nov. 5, 1908, the members and their wives were banqueted at the Southern Hotel, Harrisonville, at which they were entertained by appropriate toasts.

Dec. 14, 1911, the members and their guests were served at 6:00 o'clock dinner and smoker at the Hotel Harrisonville, after which they repaired to the hotel parlors when they listened to admirable addresses by the retiring president, Dr. F. B. Ellis, Dr. H. E. Pearse, Kansas City, and Dr. E. J. Goodwin, St. Louis, secretary of the Missouri Medical Association.

A list of the names of the presidents and secretaries, with the year of election, is as follows:

Year	President	Secretary
1902	H. Jerard	J. S. Triplett
1903	T. W. Adair	J. S. Triplett
1904	R. D. Ramey	J. S. Triplett
1905	G. W. Farrow	W. F. Chaffin
1906	H. A. Brierly	W. F. Chaffin
1907	G. M. Anderson	R. P. Geagle
1908	W. F. Chaffin	T. W. Adair
1909	J. S. Triplett	H. S. Crawford
1910	F. B. Ellis	H. S. Crawford
1911	S. W. Fair	H. S. Crawford

In writing this more or less incomplete history of the Cass County Medical Society, I have depended for the most part on records kept by

the secretary in his book of proceedings, and in closing I can not urge too strongly on you the importance and even necessity of heeding the recommendations of the editor of *The Journal of the American Medical Association* concerning this matter. He says (*Jour. A. M. A.*, Vol. lix, p. 1733): “. . . The records of a county society are worthy of greater care than they ordinarily receive. The minutes should be recorded in such a manner as to make them permanent and should be transmitted from one secretary to his successor. Minute books should be preserved. Their value increases with years. . . . Few officers realize that official correspondence is the property of the organization and should be properly filed in the archives of the society. When the members and officers have failed to preserve records of passing events it is practically impossible to write a history of the organization, for, lacking corroboration, what should be history becomes merely legend. Every society should provide suitable files for preserving its records and require that they be safeguarded and preserved.”

OPHTHALMIA ELECTRICA; WITH CASE REPORT

WM. E. SHAHAN, A.M., M.D.

ST. LOUIS

Ophthalmia electrica is a clinical condition closely analogous to that already long known as “snow blindness.” It is an affection primarily of the conjunctival sac and superficial layers of the cornea, and is ascribed by most modern observers to the effect of the actinic rays of the spectrum just beyond the visible violet and designated, therefore, as ultra-violet light (more properly as ultra-violet radiation). These rays are not visible, and the only effect they produce on the eye is one of chemical activity, which manifests itself in such symptoms as are enumerated below. The common sources of such light are furnished by naked arc lights, short circuits, particularly between iron terminals, vast stretches of snow, to a less extent by mercury vapor light where glass (not quartz) tubes are used, to a practically negligible extent by metallic filament incandescent lamps such as tungsten, tantalum, etc., and almost not at all by carbon filament incandescent and petroleum lamps. Ultra-violet light is almost completely excluded by ordinary window glass and protection from it is therefore obtained by interposing a piece of glass between the eye and source of light. If the source is especially violent, a yellow or reddish tinted glass or glass of special chemical composition, such as the Euphos glass of Schanz and Stockhausen, may be used.

The symptoms begin from twelve to twenty-four hours after exposure. This is a most marked characteristic of ultra-violet light burns. The symptoms are burning, stinging and scratching of lids and conjunctiva, photophobia, lachrimation, more or less diminished visual acuity, and in severe cases corneal ulceration.

This patient, a vigorous man 42 years of age, consulted me Jan. 12, 1913, for what appeared to be a mild conjunctival irritation. He had been awakened, he stated, at about 2 a. m., by a violent stinging pain in his eyes, “as if they were full of dust.” He was in acute distress from it the rest of the night and tried to get relief, without avail, from application of wet towels, weak salt water, diluted witch hazel, etc. His visual acuity was 20/38 O. D., 20/38 + O. S., apparently not improved by glasses. Close examination showed no loss of conjunctival or corneal substance. But ophthalmometric examination showed the usually perfectly uniform images of the mires reflected from the corneal surface to be distorted by short choppy irregularities just about commensurate with his lessened visual acuity. His history showed that almost exactly twelve hours previous to the onset he had been sitting on the “sand-box” on the front platform of an electric street car, when the “circuit breaker” on the ceiling of the car, about 5 feet from his face, emitted a sharp report and blinding flash. He thought a little dust got into his eyes, but seemed to be “all right,” by the time he got off the car about five or ten minutes later, and had no trouble until he was awakened by the acute onset twelve hours later. He was given:

R	Sodii biberatis	℥i
	Acidi borici	℥i
	Cocainae nitratis	gr. ii
	Aquae camph.	℥ss
	Aquae dest. qs. ad.	℥ii

to use freely in his eyes three times a day.

The next day he was much better. Vision was 20/15 + O. D., 20/15 + O. S. The ophthalmometer showed very slight irregularity of the corneal surface. He did not use glasses, and having a hypermetropia of only 0.25 D., was advised that he did not need them. He was discharged cured on the third day.

A few days later the railway surgeon telephoned me that the patient had put in a small claim against the company, and desired a description of the case. He then stated that he had already had experience with several similar cases. Later I learned from the patient that his claim had been settled without suit. It appeared from the patient's statement that this particular circuit breaker was not closed in by the usual wooden casing.

520 Metropolitan Building.

THE JOURNAL

OF THE

Missouri State Medical Association

Address all Communications to 3525 Pine Street, St. Louis, Mo.

MAY, 1913

EDITORIALS

THE ANNUAL MEETING, ST. LOUIS, MAY 13-15

The coming annual session of the State Association promises to see several reforms in the work of the Association, particularly in the matter of perfecting methods for the protection of the material interests of the members. It is becoming increasingly apparent that the numerous activities of the organization cannot be continued under the present low assessment, and the demand is growing in different parts of the state, not only for a continuation of the work of the Association as conducted now, but for even greater efforts toward raising the standard of the profession in the estimation of the public, increasing its usefulness in the field of preventive medicine and enlarging the protective influences of the organization, both as to the members and as to the public by invasion of the medical field by imposters—legal and illegal.

It is, indeed, high time that physicians began considering means of creating within their own ranks adequate and effective protection of their own interests and establishing proper measures for accomplishing the objects for which they have become organized.

The time has passed when members of the medical profession, and especially the members of the organized medical profession, may with impunity disregard the common interests of the profession and impute to themselves, through devious and questionable methods, privileges of personal activities which are contrary to the spirit and letter of the organic laws governing our Association, and expect to escape the disciplinary. Men band themselves together for the accomplishment of certain objects in other directions than for the advancement of the science of medicine and rarely do we learn of their neglecting to fulfil all the requirements of membership. Yet, astonishing as it may seem, some of the members of the medical organization apparently regard the body to which they have declared their professional allegiance as a mere incident in the course of their medical lives, to be used for their own advancement when feasible, but ignored when the Association requires a personal sacrifice or assistance. However, the realization is growing that the medical organization, instead of

being a complimentary body is, in point of fact, the most highly important and essential complement for maintaining reputability and good standing. The sooner all members realize this fact and act accordingly the sooner will our profession be relieved of many of the disgraceful and demoralizing acts, though somewhat petty in nature, indulged by those whose comprehension of the real benefits of medical organization do not extend beyond the aura which a certain imaginative scientist declares surrounds every individual.

THE PROGRAM FOR THE ANNUAL MEETING

The Program Committee has prepared an interesting arrangement of the papers to be read at the coming session, and most of the scientific work will be done in general session. This is in accordance with the instructions of the House of Delegates of the 1912 meeting, that less time be devoted to section work. The House of Delegates will be in session all day Tuesday. The work of that body, it is believed, will thus be completed on the initial day of the meeting so that delegates and councilors will find opportunity to attend the scientific sessions, a privilege that has been denied them, for the most part, at all previous meetings. The alumni societies will have their gatherings on Wednesday evening between the hours of 6 and 8, thus permitting all members to attend the public meeting at the St. Louis Medical Society auditorium at 8 o'clock. The full program is published on another page.

The Society of Medical Secretaries will hold its session as usual on Tuesday afternoon, May 13, in the Medical Library Building. The papers to be read at the meeting have not yet been program of the Association. The dinner for the Secretaries will be from 6 to 8 the same day. Dr. Thos. O. Klingner of Springfield is president, and Dr. J. H. Timberman of Marston is secretary.

MEETING PLACES OF THE ANNUAL SESSION

The meeting halls for the sessions of the annual gathering of the Association are well arranged for the convenience and comfort of the members. The House of Delegates and all general sessions will convene in the auditorium of the St. Louis Medical Society at 3525 Pine St. The surgical section will also hold its meeting in that hall. The medical section will meet in the Aschenbroedel Club at 3535 Pine St., just two doors west of the Medical Society auditorium. The registration bureau and exhibit hall will have space next to the Medical Society auditorium and is conveniently arranged for both the members and the exhibitors.

The Committee on Arrangements have chosen the Jefferson Hotel as headquarters; the rates (European plan) at this and other hotels are:

JEFFERSON HOTEL (HEADQUARTERS)—FIREPROOF

Single room without bath, \$1.50 and \$2.00; double room without bath, \$2.50 and \$3.00; single room with bath, \$2.50 and up; double room with bath, \$3.50 and up.

PLANTERS' HOTEL—FIREPROOF

Same rates as Jefferson.

MARQUETTE HOTEL—FIREPROOF

Single room without bath, \$1.00 and \$1.50; room with bath, \$2.00, \$2.50 and \$3.50; \$1.00 additional for each extra person in room.

AMERICAN HOTEL—FIREPROOF

Single room, \$1.50 and up; double room, \$2.50 and up. All rooms have private bath and running ice water.

MARYLAND HOTEL—FIREPROOF

Single room without bath, \$1.00 and \$1.50; single room with bath, \$1.50, \$2.00 and \$2.50; \$1 additional for each extra person in room.

These hotels are all located in the down-town district, there being no suitable hotels in the neighborhood of the meeting halls.

In addition to the hotels, there are numerous lodging and boarding houses with first class accommodations in the immediate vicinity of the meeting halls. Any member who desires to engage rooms in advance through the Committee on Arrangements should address Dr. W. B. Dorsett, Chairman, Wall Building, or the secretary of the committee, Dr. R. E. Schlueter, Metropolitan Building.

DR. NORTON TRIES AN OLD TRICK

The day of exploitation of the medical profession by manufacturers of questionable proprietary preparations is past. The medical journal that is financed primarily by advertising space occupied chiefly by the makers of specifics and cure-alls, has no reason for existence; but, unfortunately, many such there are. The publishers of such journals and the advertisers who make them possible, hold much the relation of two drunken pals, confident in their mutual efficiency and indifferent of the medical profession and of the public so long as the "returns" are generous and the sales numerous. However, it is becoming gratifyingly more frequent (thanks to the creation of the Council on Pharmacy and Chemistry and the State Medical Association Journals) to observe that he who to-day seeks space in a scientific and reputable journal with other than a meritorious product not only is not countenanced, but is properly exposed.

The effrontery of one, George Mosse Norton, M.D., of Savannah, Ga., in seeking space in the reading columns of our JOURNAL for a testimonial of "The Jireh Starch-Treated Food" for diabetes, is an illustration of what the unscrupu-

lous and otherwise unoccupied physician and the commercially inclined drug manufacturer will resort to. By subterfuge and indirection, and by the hope of flattering an unsuspecting and possibly uninformed editor, this company, manufacturing a so-called "starch-treated food" (whatever that may be), endeavors through the representations of this said Dr. Norton, to have published in this JOURNAL a pseudoscientific article on the etiology, pathology and therapy of diabetes, recommending in glowing terms an accidentally (?) discovered diabetic food. And this attempt three weeks after the Council on Pharmacy and Chemistry of the American Medical Association exposed the worthlessness of the product and the misrepresentation of the manufacturers!

Such methods have been resorted to for years. For a consideration, many a physician has lent his pen and wit to the commercial advantage of the drug manufacturer and without investigation or evidence of proof of the value of the drug or product in question. Everyone condemns such methods and procedures in business and legal affairs, and they surely deserve greater condemnation where health, expense and reputation are at stake, as is true in the case of any manufactured food or drug. Here the suffering patient is credulous and hopeful and willing to grasp at anything which may promise relief. The busy practitioner, too, is placed in an unfortunate position. His subscription to a recognized medical journal justifies his assumption that the advertisements carried in it are of reputable houses, with products carefully and scientifically prepared. He has reason to believe that they have been therapeutically tested and proven before being placed on the market. The physician's time does not justify his experimenting, hence, as is true with many, he recommends and prescribes various new remedies, and especially prepared foods, on account of the character and plausibility of the advertisement in medical periodicals on which he depends to furnish him with the latest in medical research and therapeutics.

With the *Journal* of the American Medical Association, this JOURNAL has taken the stand in this and all similar instances of refusing any aid in the publicity of the aforesaid product, except to condemn it. We further wish to inform the members of the Association and the present and any possible future advertisers, that the policy and purpose of the publication committee of this JOURNAL is to protect its subscribers just as much in the character of the advertising matter as in the articles published. This means a more careful scrutiny of advertisements offered in the future and their source, and a rigid censoring of all advertisements now carried. The pages of this JOURNAL are for the purpose of advancing scientific medicine and safeguarding the welfare of the public at large.

DR. GRANT'S EPILEPSY CURE

Inquiries having been made of the editor concerning the composition of "Dr. Grant's Epilepsy Cure," we publish the following, issued by the Laboratories of the American Medical Association:

A cursory examination of "Dr. Grant's Epilepsy Cure" was made in the Association Laboratory some time ago with the following results: It responds to tests for bromid and potassium, which, according to quantitative estimation, are present to the extent of 17.4 gm. potassium bromid per 100 c.c., or about 1 gm. per teaspoonful. Heavy metals, alkaloids and iodids are absent.

From this it is seen that, like other epilepsy cures, this nostrum depends on bromids for whatever activity it has.

OBITUARY

DEATH OF DR. ALGERNON T. BRISTOW OF NEW YORK

In the death of Dr. A. T. Bristow of New York, the profession of that state and, indeed, of the whole country, has lost one of the most estimable gentlemen that graced the membership of our profession; a surgeon of distinction and eminence and a practitioner who was unselfishly devoted to the uplift of medical affairs and the protection of the welfare of his fellow-practitioners and the public.

Dr. Bristow was born in Richmond, England, and was 4 years old when he came to this country. He was educated in the public schools of New York and Yale University, from which he graduated in 1873. He received his medical diploma from the College of Physicians and Surgeons of New York in 1876. He had been vice-president of the New York Academy of Medicine, president of the Kings County Medical Society and a visiting surgeon in various hospitals in New York.

Dr. Bristow was a frequent contributor to medical literature and especially interested in the economic phase of the life of the practitioner. He was a man of strong personality and devoted to his friends, of whom he had a very large number. He died on March 26, a martyr to his science from a septicemic infection in the finger, received while performing an operation two weeks before. All the means at the command of the science of medicine proved unavailing to avert the fatal result of the infection and the annals of our profession thus number one more victim of the microscopic enemy of mankind which the science of medicine is strenuously battling to overcome.

NEWS NOTES

THE AMERICAN PROCTOLOGIC SOCIETY will hold its annual session at Minneapolis, June 16 and 17 at the Hotel Radisson. Dr. L. H. Adler, Jr., Philadelphia, is secretary of the Society.

SOUTHEAST MISSOURI MEDICAL SOCIETY will hold a session in St. Louis during the meeting of the State Medical Association, on Wednesday, May 14. A smoker and luncheon will be a feature of the meeting.

THE medical examiners of the Provident Life and Trust Company of Philadelphia will have a luncheon at the Mercantile Club on Wednesday, May 14, at 1 o'clock. The Medical Director of the company, Dr. Charles H. Willits, will be present.

THE ST. LOUIS MEDICAL SOCIETY is arranging to hold clinics at various hospitals in St. Louis for the benefit of the members attending the annual session. These clinics will be given Friday and Saturday, May 16 and 17, and will include demonstrations in all the principal branches of medicine. Clinics will be held at the following hospitals: City Hospital, St. John's Hospital, St. Mary's Hospital, St. Louis Children's Hospital, Washington University Hospital, St. Anthony's Hospital, Barnard Free Skin and Cancer Hospital, Bethesda Home.

THE following physicians have been appointed members of the State Board of Health by Governor Major: Drs. F. H. Matthews, Liberty; J. A. B. Adcock, Warrensburg; R. L. Wills, Neosho; G. O. Cuppidge, Moberly, and T. H. Wilcoxon, Bowling Green.

All are members of the Association, except Dr. Wilcoxon, who is a homeopathist. The city of St. Louis, with its 1,800 regular physicians, continues to be represented on the State Board of Health by an eclectic.

MR. H. C. FRICKE, a prominent druggist of St. Louis, has been appointed State Pure Food and Drug Commissioner. He has established offices in the La Salle Building, St. Louis. Mr. Fricke is well fitted to perform the duties of this important office and protect the people from fraud and deception in the sale and distribution of food and drugs.

The Pure Food Commissionership is a position that calls for constant and intelligent supervision of the business methods of tradesmen and the kind of stock carried by them for sale as food and drugs.

THE Alumni Association of St. Louis University Medical Department have prepared the following program for the week of the Missouri State meeting.

Regular meeting, Monday, May 12, 8:00 p. m., Medical Building. Program to be furnished by out-of-town members.

Alumni Dinner, Wednesday, May 14, 6:00 p. m., Jefferson Hotel.

At a meeting of Alienists and Neurologists of the United States held in Chicago, April 17, 18 and 19, 1912, under the auspices of the West Side Branch of the Chicago Medical Society and the Chicago Medical Society, a resolution was adopted to hold a second meeting in Chicago in 1913, and a committee to be appointed to arrange for such a meeting.

In accordance with the resolution, such a committee has been appointed, consisting of thirty-one specialists in different parts of the country. Dr. H. N. Moyer, Chicago, is chairman, and Dr. W. T. Mefford, Chicago, is secretary.

It is with much regret that we learn that Dr. C. M. Jackson, Dean of the Medical Department of Missouri State University, has resigned from his position and accepted the professorship in anatomy in the Medical Department of the University of Minnesota.

Dr. Jackson has made a splendid record at our State University, both as a teacher and as an administrator of the affairs of the department, and has kept himself in touch with medical problems as they affect the practitioner to such an extent that his withdrawal from the medical field in Missouri is a distinct loss to the profession and the science in this state. However, he will carry with him to his new field of endeavor the cordial well wishes of the entire profession of the state and will be a notable addition to the faculty of the University of Minnesota.

UNDER the strict merit system adopted by the Hospital Board of St. Louis, 222 candidates applied for 45 positions as interns at the City Hospital this year—more than double the number of any previous year. The appointments are made for one year, with board, room and laundry and no salary. There is a chance of advancement at the end of the first year to the position of Assistant Resident Physician.

There were 62 candidates from St. Louis, 86 from Chicago, 22 from Philadelphia, 29 from New Orleans and 22 from the University of Texas. The first 45, highest, from the 222 were selected, 26 came from Chicago, 6 from Philadelphia, 6 from St. Louis, 5 from New Orleans and 2 from Texas. Names as follows, arranged alphabetically:

C. H. Bartling, R. V. A. Bliss, C. A. Breitling, E. J. Burke, James C. Clarke, T. G. Cleveland,

R. L. Cowles, H. B. Culver, G. A. Dapp, A. M. Drummy, Thomas S. Fleming, R. H. Focht, J. E. Furr, A. J. Gay, L. Glassman, A. W. Gottschall, E. S. Hamilton, F. P. Hammond, Wm. L. Hanson, Allan J. Heuby, V. C. Hunt, Chas. G. Hutter, Jas. F. Jolley, J. P. Kane, W. E. Keppenbrink, C. P. Lapin, H. E. S. McMurray, R. McReynolds, C. A. McWilliams, E. M. Miller, N. S. Moore, W. H. Nadler, L. K. Patton, Wm. Quigley, H. R. Rarig, F. J. Rathbun, G. L. Rathbun, C. O. Rinderspacher, S. H. Rosenthal, L. R. Sante, H. I. Seng, C. V. Smith, Wm. W. Trimble, C. W. Weller, C. H. Young.

SOCIETY PROCEEDINGS

PROGRAM OF THE FIFTY-SIXTH ANNUAL MEETING OF THE MISSOURI STATE MEDICAL ASSOCIATION

St. Louis, May 13, 14 and 15, 1913

HOUSE OF DELEGATES

TUESDAY, MAY 13, 9:00 A. M.

ST. LOUIS MEDICAL SOCIETY AUDITORIUM

9 to 12 a. m.—House of Delegates.

12 Noon.—Judicial Council.

2:30 p. m.—House of Delegates.

SOCIETY OF MEDICAL SECRETARIES

TUESDAY, MAY 13, 3:00 P. M.

MEDICAL LIBRARY HALL

Address.

R. M. Funkhouser, M.D., President Missouri State Medical Association.

A Message from the Council.

F. J. Lutz, M.D., Chairman Judicial Council Paper.

A. H. Thornburgh, M.D., West Plains (Howell County)

Paper. E. E. Holtzen, M.D., Sedalia (Pettis County) Paper.

John R. Smith, M.D., Warsaw (Benton County) Paper.

W. F. Goetze, M.D., St. Joseph (Buchanan County) Paper.

F. C. E. Kuhlmann, M.D., St. Louis (St. Louis M. S.) General Discussion.

BANQUET

ELKS' CLUB, 6:00 P. M.

Address.

Alexander R. Craig, M.D., Chicago, Secretary American Medical Association.

Medical Legislation.

W. S. Allee, M.D., Olean Scientific Work in Medicine.

Thos. O. Klingner, M.D., President, Springfield Relation of County Medical Secretary to State Association. E. J. Goodwin, M.D., St. Louis

Address.

A. W. McAlester, Jr., M.D., Kansas City

GENERAL SESSION

TUESDAY, MAY 13, 8 P. M.

ST. LOUIS MEDICAL SOCIETY AUDITORIUM

Public Meeting

1. President's Address. R. M. Funkhouser, M.D.
2. Oration on Medicine. A. H. Hamel, M.D.
3. Oration on Surgery. F. G. Nifong, M.D.

GENERAL SESSION

WEDNESDAY, MAY 14, 9:00 A. M.

ST. LOUIS MEDICAL SOCIETY AUDITORIUM

Symposium on Habitual Constipation

1. Physiology of Defecation and Etiology of Habitual Constipation.
Wm. H. Stauffer, M.D., St. Louis
2. Habitual Constipation, Mainly With Reference to Its Constitutional Effects.
Woodson Moss, M.D., Columbia
3. Cutaneous Manifestations of Habitual Constipation.
J. P. Kanoky, M.D., Kansas City
4. Diet and Constipation.
J. M. Bell, M.D., St. Joseph
5. Drugs and Constipation.
O. B. Hall, M.D., Warrensburg
6. Surgical Procedures in Constipation.
A. E. Hertzler, M.D., Kansas City
7. X-Ray Investigations of Constipation.
E. H. Skinner, M.D., Kansas City
8. The Prophylaxis of Poliomyelitis.
E. W. Saunders, M.D., St. Louis

MEDICAL SECTION

WEDNESDAY, MAY 14, 1:30 P. M.

ASCHENBROEDEL CLUB

1. Acute and Sub-Acute Bright's Disease.
Thomas H. Shy, M.D., Centerville
2. Arterial Hypertension.
Scott P. Child, M.D., Kansas City
3. Management and Treatment of Tuberculosis.
J. P. Brandon, M.D., Essex
4. Epidemic Puerperal Eclampsia, With Report of a Case.
E. H. Miller, M.D., Liberty
5. The Relation of Refraction to the Practice of Medicine.
T. A. Coffelt, M.D., Springfield
6. Alimentary Intoxication and Enteric Infection in Infancy.
Jules M. Brady, M.D., St. Louis
7. Anxiety Neuroses and Their Treatment.
G. Wilse Robinson, M.D., Kansas City
8. Bacterin Therapy.
John D. Seba, M.D., Bland

SURGICAL SECTION

WEDNESDAY, MAY 14, 1:30 P. M.

ST. LOUIS MEDICAL SOCIETY AUDITORIUM

1. The Choice of Operation in Prostatectomy.
Ernest G. Mark, M.D., Kansas City
Discussion opened by
Dr. Bransford Lewis, St. Louis
2. The Anatomical Basis Underlying Operation for Uterine Prolapse.
Howard Hill, M.D., Kansas City
Discussion opened by
Dr. George Gellhorn, St. Louis

3. Operative Procedure in the Treatment of Uterine Displacements.
John McIl. Dean, M.D., St. Louis
Discussion opened by
Dr. Harvey S. McKay, St. Louis

4. Primary Carcinoma of the Appendix.
Louis Rassieur, M.D., St. Louis
Discussion opened by
Dr. Ernst Jonas, St. Louis
5. Gauze or Rubber Tubing for Peritoneal Drainage.
H. J. Jurgens, M.D., Edina
6. Diagnosis and Post-Operative Care of Acute Surgical Conditions. F. W. Bailey, M.D., St. Louis
Discussion opened by
Dr. John Young Brown, St. Louis
7. Experimental Study of the Therapy of Surgical Shock.
M. G. Seelig, M.D., St. Louis
Discussion opened by
Dr. Ernest F. Robinson, Kansas City
8. The Rectal Plug.
Rollin H. Barnes, M.D., St. Louis
Discussion opened by
Dr. J. M. Frankenberger, Kansas City

GENERAL SESSION

WEDNESDAY, MAY 14, 8:00 P. M.

Public Meeting

ST. LOUIS MEDICAL SOCIETY AUDITORIUM

1. Our State Insane Asylums and How They May Be Improved.
M. P. Overholser, M.D., Harrisonville
2. The Present Situation in the State Hospital Service of Missouri.
M. A. Bliss, M.D., St. Louis

HOUSE OF DELEGATES

THURSDAY, MAY 15, 9 TO 9:30 A. M.

ST. LOUIS MEDICAL SOCIETY AUDITORIUM

Election of officers.

GENERAL SESSION

9:30 TO 10 A. M.

- Election of President.
Election of Orator on Medicine.
Election of Orator on Surgery.

10 A. M.

1. Clinical Aspect of Septic Endocarditis.
F. W. Froehling, M.D., Kansas City
2. Pathology and Bacteriology of Septic Endocarditis.
(By invitation) A. Sophian, M.D., Kansas City
3. The Physician, the Patient and the Surgeon.
J. C. Boone, M.D., Charleston
4. Simple and Exophthalmic Goitre.
O. B. Campbell, M.D., St. Joseph
5. Perinephritis.
Henry Jacobson, M.D., St. Louis
Discussion opened by Dr. W. T. Elam, St. Joseph

GENERAL SESSION

THURSDAY, MAY 15, 1:30 P. M.

ST. LOUIS MEDICAL SOCIETY AUDITORIUM

1. A Rare Congenital Defect of the Nose and Its Correction.
Francis Reder, M.D., St. Louis
2. Some Considerations of the Course of Specific Urethritis in the Male and Their Bearing on Treatment.
H. McClure Young, M.D., St. Louis

Discussion opened by

Dr. H. McC. Johnson, St. Louis

3. Surgical Responsibility.

C. H. Fulton, M.D., Springfield

4. Arteriosclerosis in Relation to Certain Ocular Diseases.

Elsworth Smith, M.D., St. Louis

5. Some Problems Confronting the Sanitarian.

H. L. Reid, M.D., Charleston

6. The Draeger Pulmotor, with Lantern Slide Demonstrations.

W. R. Hewitt, M.D., St. Louis

THE GRAND RIVER ELEVENTH DISTRICT MEDICAL SOCIETY

The Grand River Eleventh District Medical Society held a very pleasant and profitable meeting in Chillicothe, March 12. A nice program was carried out in full with the exception of two or three papers, there being about forty present. Chillicothe was selected for the next place of meeting. The new officers are: President, Dr. D. F. Howard of Brookfield; vice-president, Dr. J. W. Hardy of Sumner; secretary, Dr. J. C. Shelton of Chillicothe; treasurer, Dr. J. L. Burke of Laclede.

CRAWFORD COUNTY MEDICAL SOCIETY

The Crawford County Medical Society met in regular session in the office of Dr. A. H. Horn, at Steelville, April 10, at 1:30 p. m.

The following officers and members were present: Dr. J. T. Coffee, president; Dr. E. L. Hume, secretary; Drs. A. H. Horn, J. H. Parker, W. H. Morgan and R. F. Vanghn.

Dr. Hume was elected to represent the county society in the House of Delegates of the State Association, and Dr. Horn was elected alternate.

After the regular business was transacted the following subjects were considered:

"Fee-Splitting" was discussed rather generally and as generally denounced.

"The Doctor in Politics."

"Persistent Vomiting of Pregnancy"; report of a case.

Discussion by everyone present.

"Indentation of Both Plates of Parietal Bones in Child of Eight Months"; report of a case.

E. L. HUME, M.D., Secretary.

GREENE COUNTY MEDICAL SOCIETY

The Greene County Medical Society has met regularly every second and fourth Friday nights during the year. The average attendance has been twenty-two and the interest excellent. The program committee is to be congratulated on the excellent program prepared for the entire year.

On February 14 Dr. W. A. Camp read an excellent paper on "The Use of the Von-Hippel Trephine in Operations for Glaucoma."

February 28 Dr. G. B. Dorrell read an interesting paper on "Oxolyne as a Scientific Therapeutic Remedy in the Practice of Medicine." This paper elicited a very lively discussion, some recommending the treatment, others condemning it.

March 14 Dr. B. F. Fortner read a paper entitled "Adhesions." This paper, coming from a surgeon of Dr. Fortner's ability and experience, was very instructive.

On March 28 the Springfield Bar was invited to listen to an address by the Hon. T. J. Delaney on "The Relation of Medicine to Law." This was an exceedingly interesting paper, which explained medical jurisprudence in a nutshell. The Society voted

appendicitis. The patient was addicted to the excess, unanimously to have this paper published in the State Journal.

April 11 was the banner night for the Society. Drs. C. E. Burford and J. W. White of St. Louis, were guests and read papers as follows: Dr. Burford, "Prostatic Enlargement"; Dr. White, "Congenital Pyloric Stenosis." Both were excellent papers and well received.

THOS. O. KLINGNER, M.D., Secretary.

HOWARD COUNTY MEDICAL SOCIETY

The Howard County Medical Society met at Fayette, Friday, April 4, Dr. T. C. Richards, president, in the chair. Those present were Drs. Burgwin, Bonham, Payne, Lee, Richards and Watts.

There were no clinical cases presented and no papers read.

Under miscellaneous business Dr. Burgwin called the attention of the members to the necessity of having a hospital in Fayette and made a motion that the president appoint a committee of three to confer with a like committee of the Commercial Association of Fayette. Seconded and unanimously carried. The chair appointed Drs. Burgwin, Lee and Thompson on the committee to report at the May meeting.

The committee on resolutions on the death of Dr. Doke Gentle of New Franklin read the resolutions, which were ordered to be spread on the records of the Society.

The next meeting will be held in May.

C. W. WATTS, M.D., Secretary.

POLK COUNTY MEDICAL SOCIETY

The Polk County Medical Society met at Dr. Brown's office, Fair Play, at 10 a. m., March 11, and was called to order by Dr. Paris, the president.

The following members were present: Drs. R. W. Paris, C. H. Brown, A. J. McLaughlin, John W. Coy, R. Lee Russell, C. H. Hahn, L. L. Hunt and J. F. Roberts; also Dr. Roseberry, of Springfield, and Drs. Killingsworth and Griffin of Fair Play.

After the reading and approval of the minutes of the last meeting the regular program for the meeting was taken up.

Dr. Roseberry, an honorary member of the Society, read an interesting paper on "Late Operations for Appendicitis," laying special stress on the proper time for the operation. He advised lavage of the stomach before operation in cases attended by reversed peristalsis with vomiting, and saline irrigation of the pus cavity after the operation. The paper was discussed by the members present. The Society then adjourned and its members were entertained at dinner by the local physicians of Fair Play.

At 1 p. m. the Society met and two clinical cases were presented for examination by Dr. McLaughlin. After this examination the cases were discussed as to diagnosis and treatment.

Dr. C. H. Brown read a very interesting paper on "The Heart: Its Work and Its Most Common Diseases." The paper was discussed by Drs. Russell, Roberts, Paris and others. It was moved and carried that Dr. Brown be requested to furnish a copy of this paper to the State Journal for publication.

Dr. John W. Coy reported a case of pneumonia in a child, followed by effusion into the pleural cavity and empyema; also complicated by a severe, copious hemorrhage, first from the stomach and later from the bowels. Recovery finally occurred after the chest was aspirated.

Dr. Roberts reported a case of impacted hip joint fracture with gastric and nervous complications, which was discussed by the members.

Dr. Brown reported a case of epileptiform spasm in a young man who had previously been operated on for

sive use of alcoholics at times and the spasms were controlled by the use of apomorphia, hypodermically.

Dr. McLaughlin and others discussed the clinical cases of tuberculosis presented.

On motion the Society extended a vote of thanks to the local profession of Fair Play for their royal entertainment and to Dr. Brown for the use of his office for the meeting.

A vote of thanks was also on motion extended the State Committee on Public Policy and Legislation and to our representatives and senators for their successful efforts in defeating vicious legislation in the present state assembly.

On motion the Society voted to hold its next regular session at Humansville, June 10, on the second Tuesday.
J. F. ROBERTS, M.D., Secretary.

SCOTT COUNTY MEDICAL SOCIETY

The Scott County Medical Society met at Sikeston, April 7, in the office of Dr. Malcolm at 1:30 p. m.

The members present were Drs. Malcolm and Milem of Sikeston, Dr. Cannon of Farnfeld, and Dr. Finney of Chaffee; visitors, Drs. Rhodes, Stocking, Kendall, Miller and Mayfield.

Drs. Rhodes, Stocking, Kendall and Miller applied for membership in the Society and were elected.

The question of "Uterine Curettement" was then taken up and Dr. Kendall made the statement that the word justification could never be properly applied to a curettement except as done by an expert gynecologist. All present took part in the discussion and the majority did not agree with Dr. Kendall.

A case was reported by Dr. Milem which was freely discussed by all.

The question of life insurance companies dismissing an examiner without giving a reason was discussed and the opinion of the Society was that the doctors should protect each other in such cases.

Dr. Cannon was elected state delegate and Dr. Milem alternate.

The Society adjourned to meet on the first Monday in July at Chaffee, Mo., by which time we hope all members will have the Society fever.

G. S. CANNON, M.D., Secretary.

TANEY COUNTY MEDICAL SOCIETY

The Taney County Medical Society met at Dr. Mitchell's office in Branson at 1 o'clock Wednesday, March 19, with the president, Dr. Baldwin, in the chair. The members present were Drs. F. V. Baldwin, Elizabeth McIntyre, Guy B. Mitchell, W. M. Irwin, G. W. Gloyd and T. H. Humphreys.

Dr. McIntyre read a paper on "Serum and Vaccine Therapy," which was well prepared and freely discussed by the Society. The consensus of opinion being that in selected cases such treatment promises excellent results, but at present the field is limited.

Our Society meets quarterly. The next meeting will be held in Dr. Mitchell's office at Branson at 1 o'clock, Wednesday, June 18. Visitors from other county societies are cordially invited to be present. Write the secretary if you have a paper to read.

T. H. HUMPHREYS, M.D., Secretary.

The Truth About Medicines

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medi-

cines" appear matters tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago, Ill.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

POLYVALENT ACNE VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

ANTIMENINGITIS SERUM.—A polyvalent serum prepared from the blood of horses immunized to the meningococcus of Weichselbaum. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT B. COLI-COMMUNIS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

REFINED AND CONCENTRATED DIPHTHERIA ANTITOXIN (ANTIDIPHTHERIC GLOBULIN).—Put up in a syringe container. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT GONOCOCCUS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT MENINGOCOCCUS VACCIN.—Marketed in packages of three ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT PNEUMOCOCCUS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT PYOCYANEUS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT STAPHYLOCOCCUS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT STAPHYLO-ACNE VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT STREPTOCOCCUS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT TYPHOID VACCIN.—Marketed in packages of three ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

ANTIRABIC VACCINE.—The Antirabic Vaccine, formerly manufactured by the American Biologic Company, Kansas City, Mo. (See New and Nonofficial Remedies, 1913), is now manufactured by the Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

ANTIGONOCOCCIC SERUM.—A highly immune polyvalent serum, prepared by immunizing horses against many strains of gonococci. Sophian-Hall-Alexander

Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 19, 1913.)

ANTISTREPTOCOCCUS SERUM.—A polyvalent serum obtained by immunizing horses with increasing doses of streptococci extract and subsequently with live cultures. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 19, 1913, p. 1227.)

NORMAL HORSE-SERUM.—The serum of normal horse blood obtained in a sterile manner and passed through a Berkefeld filter. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 19, 1913, p. 1227.)

REFORM IN MEDICINES

THE DEADLY BICHLORID TABLET.—In this country many accidental deaths are caused by the indiscriminate use of mercuric chlorid tablets. The German Pharmacopeia requires that mercuric chlorid pastilles be colored bright red, have a cylindrical shape, be twice as long as thick, be dispensed in glass containers and be labeled "poison." Further, each tablet must be wrapped in black paper which must bear, in white letters, the word "poison" and a statement of the weight of mercuric chlorid. Finally it is specified that they be kept under lock and key. The protection thus given the people of Germany shows the advantages of a "government-owned" pharmacopeia over such as ours which are dominated by commercial interests. (*Jour. A. M. A.*, April 5, 1913, p. 1083.)

MANOLA.—Manola is an alcoholic nostrum with just enough more or less inert medicinal products added to exempt it from the internal revenue tax, but not enough to prevent it being used as a tiple. It is prepared by the Luyties Pharmacy Company, of St. Louis, a homeopathic concern. Since the promoters realize, doubtless, that to put this stuff out under a homeopathic label might not be conducive to stimulating physicians' confidence, Manola is labeled: "Prepared only by the Manola Company, St. Louis." Manola is exploited by means of a scheme which consists in offering the physician three bottles of Manola free on condition that he get his druggist to purchase a dozen bottles. If the scheme "works" the druggist has his shelves loaded up with a dozen bottles of Manola, while the doctor gets three bottles for nothing and, incidentally, he also gets the contempt of his druggist—and of such patients as learn of it. (*Jour. A. M. A.*, April 5, 1913, p. 1092.)

THE GATLIN INSTITUTE.—The Gatlin Institute is one of the many "three-day liquor cures" with which the country is at present afflicted. Judging from a specimen sent in, ipecac seems to be an important part of the "treatment," for which the evidently false claim is made that "by this method failure to cure is impossible." There appears to be a close connection between the "Gatlin Institute" and the "Neal Three-Day Liquor Cure" operated from the Chicago Hospital and which has one Joseph De Barthe connected with it. De Barthe at one time exploited a "rheumatism cure." At the present time De Barthe seems to be pushing "Kinpo" which is guaranteed to "sober you up immediately." (*Jour. A. M. A.*, April 5, 1913, p. 1092.)

COD-LIVER OIL PREPARATIONS.—A sharp distinction must be made between emulsion of cod-liver oil, which contains the oil, and the so-called extracts, in which no oil is present. When ordering cod-liver oil emulsion, physicians should specify U. S. P. or N. F. preparations, such as glyconin emulsion of cod-liver oil. N. F. contains 50 per cent. of oil and may be made by any competent pharmacist or be purchased from pharmaceutical houses. Maltine with Cod-Liver Oil, containing 30 per cent. or Maltzyme with Cod-Liver

Oil, containing 25 per cent. of oil may also be prescribed. As Wampole's "Extract of Cod-Liver" is acknowledged to be devoid of oil and Waterbury's preparation has been proven to be so, both are worthless as cod-liver oil preparations. (*Jour. A. M. A.*, April 5, 1913, p. 1093.)

THE TOXICITY OF SALICYLATES.—P. J. Hanzlik has studied the records of a hospital to determine the relative toxicity of the various salicylic compounds. Given in doses of from ten to twenty grains every hour until symptoms of intoxication appear, it was found that the mean toxic doses for males and females, respectively, are: 180 and 140 grains of synthetic sodium salicylate, 200 and 135 grains of natural sodium salicylate, 120 and 120 minims of oil of gaultheria (methyl salicylate), 165 and 120 grains of acetylsalicylic acid (aspirin) and 100 and 83 grains of salicylosalicylic acid (Diplosal). While, based on the salicyl content, the efficiency of Diplosal is about twice that of oil of gaultheria and aspirin one and two-thirds that of sodium salicylate, the toxic dose of Diplosal is one-half and that of oil of wintergreen and aspirin is six-tenths that of sodium salicylate. The investigation shows that there is no difference between the toxicity of the synthetic and natural sodium salicylates. (*Jour. A. M. A.*, March 29, 1913, p. 957.)

RATTLESNAKE-VENOM (CROTALIN).—An epileptic in Texas was bitten by a rattlesnake. He escaped the secondary infection which so often complicates and adds to the fatalities by poisonous vipers and his epileptic attacks ceased. Dr. Ralph H. Spangler having had some familiarity in using crotalin in the treatment of pulmonary tuberculosis, attempted to reproduce the favorable issue of the epileptic's accident. That any measure of success sufficient to justify the adoption of crotalin treatment for epilepsy has accrued to his efforts is not to be concluded from the available reports. There are a number of good and sufficient reasons why cautious physicians should shun the administration of this treatment and advise against it. (*Jour. A. M. A.*, March 29, 1913, p. 1001.)

DIXON'S TUBERCULIN.—According to Dixon a peculiar branched form of the tubercle bacillus develops when the bacillus is grown at an elevated temperature. Grown under these circumstances the tubercle bacilli may become non-acid-fast, which is ascribed to loss of the waxy envelope. According to Dixon experiments on guinea-pigs show that the branching, non-acid-fast forms are less virulent than the original cultures from which they are produced and that they induce the development of marked resistance to lethal doses of virulent tubercle bacilli. Dixon has developed tuberculins for practical purposes consisting on the one hand of watery extracts of tubercle bacilli and on the other of suspensions of "degreased bacilli," the theory being that in this way are obtained antigens of little toxicity, but of good antigenic virtue. (*Jour. A. M. A.*, March 29, 1913, pp. 993 and 1002.)

CONCENTRATED PLUTO WATER.—The claims made for Pluto Water of the French Lick Springs, Indiana, are rivalled only by those made for such patent medicines as Peruna, Duffy's Malt Whiskey or Lydia Pinkham's Compound. The essential constituents of the water are said to be the sulphates of sodium, magnesium and calcium, chlorid of sodium and the carbonate of magnesium. It is, however, only the so-called "concentrated" Pluto Water that is found on the market. The impression is given in all of the advertising matter that the "concentrated" Pluto Water is "natural" Pluto Water concentrated to ten times its "natural" strength. From a comparison of the composition of the "natural" Pluto Water with that of "concentrated" Pluto Water as given out by the promoters shows that

the latter has more than eighty times as much sodium sulphate and nearly one hundred times as much magnesium sulphate as is found in the "natural" water. This shows that "concentrated" Pluto Water bears little relation to the "natural" Pluto and that it is essentially a solution of Epsom salt and Glauber's salt. The only indication given on the label of the fact that it is not the "natural" Pluto Water boiled down, is the statement, in small type: "Fortified with some of the natural products of the water." (*Jour. A. M. A.*, March 29, 1913, p. 1013.)

SYNTHETIC VERSUS NATURAL SODIUM SALICYLATE.—The Committee on Therapeutic Research of the Council on Pharmacy and Chemistry is investigating the claimed superiority of the "natural" over the "synthetic" sodium salicylate. Two reports have been published, namely, the critical review of the literature by Eggleston which showed that the evidence in favor of natural salicylates is very slight and that the evidence against the synthetic salicylate is even less, and the pharmacologic study by Waddell which showed that there is no difference in the physiologic action of the two kinds of sodium salicylate. Now the results of a chemical investigation made in the A. M. A. Chemical Laboratory are reported by W. S. Hilpert. An examination of eleven brands of sodium salicylate ranging from the cheapest synthetic sodium salicylate to the highest-priced "natural" kind showed that, except for some differences in the color of aqueous solutions, all the brands were essentially alike in properties and composition. (*Jour. A. M. A.*, April 12, 1913, p. 1137.)

COUDREY SENTENCED.—H. M. Coudrey, whose disguised acetanilid mixture, Labordine, was exposed by the Council on Pharmacy and Chemistry, has been found guilty in the federal courts of using the mails to defraud in the promotion of what were known as the Continental Assurance Company of America and the International Fire Assurance Company of America. (*Jour. A. M. A.*, April 12, 1913, p. 1161.)

ANTI-KAMNIA.—In a booklet sent out by the Antikamnia Chemical Company both to the medical profession and to the public, a paragraph is quoted from an article by Dr. John H. McIntyre that appeared in the *Journal A. M. A.*, July 4, 1891. The reproduction of the McIntyre quotation is evidently adopted by the Antikamnia people as a means of "playing even" with the *Journal* for the unpleasant things which, in the past, it has said about Antikamnia. The Antikamnia Chemical Company carefully avoids giving the date when the article appeared. (*Jour. A. M. A.*, April 12, 1913, p. 1172.)

SAFE DIABETIC FOODS.—So far but one product—Casoid Flour, Thos. Leeming & Co., New York—has been found eligible for inclusion with New and Non-official Remedies. The Chemical Laboratory of the Association is at present examining several products of this kind and when the investigation is complete the results will be published. (*Jour. A. M. A.*, April 12, 1913, p. 1172.)

THE "CLINICAL REPORT" FALLACY.—An editorial in the *Journal of Cutaneous Diseases* entitled "Proprietary Remedies and the Dermatologist" closes with the following: "Hippocrates said 2,400 years ago, in words which Osler is fond of quoting, that 'Experience is fallacious and judgment difficult,' and it is an aphorism that one may well ponder when he is about to be carried away by clinical impressions in the estimation of the value of some new therapeutic agent. This country is sown with old indorsements of proprietary remedies based on clinical impressions that still come back to plague their authors. There is a proprietary vegetable alterative for syphilis of large sale, whose first credential is the testimonial given by

one of America's greatest medical men on the basis of clinical impressions in the days of forty or fifty years ago, when 'alterative' was a conception to conjure with like 'radioactivity' is now. There is a lithia water for dissolving uric acid stones to whose efficacy one of America's ablest and best physicians gave written testimony. If there is anything that the history of clinical therapeutics proves, it is that experience is fallacious and judgment difficult." (*Jour. A. M. A.*, April 19, 1913, p. 1243.)

A MAIL-ORDER SCHOOL.—Walter C. Cunningham, who operated Marjorie Hamilton's Obesity Cure, has opened a correspondence mail-order school. As a result of his teaching three "graduates" offer a depilatory for sale through advertisements in a Chicago paper. Samples of the three preparations—sold as Everett's Hair Foe, McNeal's Velvet Skin Depilatory and Our Velvit Skin Depilatory—when examined in the A. M. A. Chemical Laboratory were found to be alike and consisted of barium sulphid and starch. (*Jour. A. M. A.*, April 19, 1913, p. 1243.)

REXALL ORDERLIES.—Examined by the Kansas State Board of Health they were found to contain phenolphthalein as their essential constituent. The Rexall products are sold by the United Drug Company which consists chiefly of druggists who, not content with the profits derived from the sale of "patent medicines" started a cooperative organization for their manufacture and exploitation. (*Jour. A. M. A.*, April 19, 1913, p. 1244.)

ANTIMERISTEM-SCHMIDT.—Physicians should be warned that it is useless to send abroad for this serum at present. Under the government rules requiring a license before serums or allied products may be imported into this country, it will not be admitted because no license for its sale has been issued. (*Jour. A. M. A.*, April 19, 1913, p. 1244.)

STANDARDIZATION OF DISINFECTANTS.—Believing the general adoption of a standard method for the valuation of disinfectants important, the Council appointed a committee to consider the matter. On recommendation of the committee the Council adopted the Hygienic Laboratory phenol co-efficient method. This method has some of the features of the Rideal-Walker method as well as of the Lancet method, but contains important modifications. The method is coming into quite general use and probably will replace the other methods for the standardization of disinfectants. (*Jour. A. M. A.*, April 26, 1913, p. 1316.)

FATHER JOHN'S MEDICINE.—When analyzed two years ago Father John's Medicine was found to be essentially a cod-liver oil emulsion. The term "Guaranteed under the Food and Drugs Act" on its label means only that the manufacturer has undertaken to protect the retailer in case the product is found to be adulterated or misbranded. (*Jour. A. M. A.*, April 26, 1913, p. 1316.)

LOPEZ.—Lopez is called by its exploiters, the Lopez Remedy Co., Wichita, Kansas, "the great Hot Springs remedy." Although Lopez is claimed to be a specific for syphilis, the analysis indicated that it differed but little from the various "sarsaparilla compounds" put out by "patent medicine" fakers. Whatever benefit may be derived from it is due to the potassium iodid and the laxative drugs which it contains. (*Jour. A. M. A.*, April 26, 1913, p. 1317.)

LIQUID PETROLATUM IN CONSTIPATION.—Liquid petrolatum has been recommended in the treatment of constipation, but it has not received much attention. Its action is supposed to be that of a lubricant. Its use must be regarded as in the experimental stage. (*Jour. A. M. A.*, April 26, 1913, p. 1320.)

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ORIGINAL ARTICLES

THE PROPHYLAXIS OF POLIOMYELITIS ANTERIOR ACUTA

E. W. SAUNDERS, M.D.
ST. LOUIS

Within a generation we have witnessed the appearance of a new epidemic disease which bears a close resemblance to a sporadic disease known to the profession for the last two hundred years.

In Ziemssen's Encyclopedia, published in 1877, only the sporadic form is mentioned, but a few years later epidemics were reported from Scandinavia and Vermont of a new disease, having some of the characteristics both of poliomyelitis and of epidemic cerebrospinal meningitis. Later the pathologists concluded that the disease was nothing more nor less than the old poliomyelitis in epidemic form, and possessing a virulence never known before.

Still, in his recent edition, accepts the identity of the two, but seems to think that discussion is still permissible.

Bruns, in his excellent and exhaustive article, reverts to the old view of polygenesis, and would admit a number of the acute infections as capable of originating these spinal palsies.

The work of Flexner and Lewis of the Rockefeller Institute, of Rosenau, of Anderson, and of the Scandinavian, Austrian and German workers, has thrown a flood of light on this whole subject, and they have laid down rules of prophylaxis in the epidemic form of the disease which are most salutary. Domiciliary infection persists for twelve months, and therefore the most rigid disinfection should be carried out. The same rule should be applied to all clothing and bedding, but the greatest danger undoubtedly is to be feared from post-morbum carriers, and immune-breeders, who have been in contact with the dis-

ease, and yet never manifested any clinical signs of infection. Undoubtedly a large proportion of those attacked may be classified as incomplete cases, which defy diagnosis, and yet are instrumental in spreading the disease.

At first it was thought that the mucous membrane of the nose was the sole avenue of infection. Later the virus was found in the throat, and even in the gastro-intestinal canal.

Carbolic acid seems to have as little power over this virus as it has over that of vaccinia. In the case of young children, menthol is inadmissible, because of its dangerously irritant effect when used in anything like efficient concentration. It would seem, then, that a protective oil to the nasal mucous membrane and peroxide solution to the throat would be the most rational means of local protection.

Leaving now the subject of the epidemic form of poliomyelitis, due to a human or humanized virus, occurring in cities even in winter, we will direct our investigation to the elucidation of that form of the disease which occurs chiefly in rural and suburban districts, is more often sporadic in its occurrence than epidemic, showing little tendency to face-to-face transmission, is limited strictly to the insect season, is largely coincidental with great mortality, from a paralytic disease, amongst poultry and hogs, and even affects dogs. Bruns, remarking on the epidemiology of poliomyelitis, notes the fact that it is most prevalent and most virulent, not in the crowded slums of the city, but in the rural districts.

Investigation will show that the largest number of spinal paralytics who seek orthopedic aid hail from isolated farms or villages. I must confess that in these cases I have failed generally to obtain any history of concomitant or preceding disease among domestic animals, while in the cases of recent date I have been able to establish this relation in the vast majority of instances. For instance, a child living in Cairo had poliomyelitis in the month of May, and investigation showed there was no other case in the city at the time. The father, when interrogated, said that

*Read in the General Session of the Missouri State Medical Association, at the Fifty-Sixth Annual Meeting, held at St. Louis, May 13-15, 1913.

his chickens had been dying of limber-neck in large numbers and he himself suspected that the disease of his child might have originated from the chickens and consequently disposed of them all.

Dr. Moss of Albion, Ill., investigated three cases which occurred on adjacent farms and found that they all developed about the same date and immediately following a paralytic epizootic among the fowls on a fourth farm, lying between the other three.

The statement of Bruns that poliomyelitis is often attended by great mortality amongst fowls would seem to indicate that he considered the poultry disease as secondary to that of human beings, but the doctrine of probabilities would negative this theory; for it is safe to say that there are a thousand fowls carried off by limber-neck throughout the country for every case of poliomyelitis occurring during the fly season. In two instances at least I have established clearly that the poultry epizootic was antecedent to the occurrence of the cases of infantile paralysis. It is far more likely that, if there be any connection between the two diseases, the so-called limber-neck of fowls is the original one, and the mysterious infantile paralysis occurring so often on isolated farms is in some way dependent on it.

Not only are chickens, but every species of fowl equally affected by limber-neck. My investigations lead me also to think that the great mortality amongst hogs in Missouri and adjoining states during the last two years is due to the same virus and not to hog cholera. Farmers have told me that whenever a hog takes sick and dies the generic term "hog cholera" is given as the cause, but that this recent disease bears no resemblance to the "hog cholera" as heretofore known to the farmer. The swine are taken suddenly ill, exhibiting paralytic symptoms, especially in their hindquarters, and die fat. The vaccination against hog cholera has no protective effect whatsoever. Dogs are also affected, although they seem to have vastly greater powers of resistance than fowls and hogs, and often recover if allowed to live. However, they are usually put to death because it is impossible for the ordinary observer to make a diagnosis between limber-neck paralysis and dumb rabies in the dog. Sheep, horses and cattle seem to escape. I have not been able to find a single instance of a paralytic disease occurring epizootically or even sporadically in these animals.

This acute spinal paralysis affects all the scavengers on the farm and spares the clean animals. As to the pathogenesis of limber-neck, there have been two theories advanced, that of Flexner, which holds that it is a neurodystrophy like beriberi, due to poor food; and the other which is put forth by the Government experts and believed by every poultry raiser, which attributes the paralysis to the consumption of carrion. This

prevailing theory has been utterly disproved by Dr. Tiedemann of the Washington University and myself, through experiments carried on during the last eight months. We have found that fowl thrive on putrid flesh, even when seething with maggots. Besides these experiments in the laboratory, I have accumulated a large amount of information from all over the country tending to show that it is not putrid flesh, nor even maggots in putrid flesh as such, which produce limber-neck in fowl, but that maggots grown in the carcass of a fowl, or in that of any animal which died of the limber-neck virus, are capable of producing speedy paralysis in any animal which devours them. Recently I have obtained some very strong evidence to show that the larvae of flies which have acquired potential infection by feeding on a limber-neck carcass, are capable of producing this paralysis even when grown in any other medium, such as the carcass of a rat or of any animal dead from any cause whatever, and even in vegetable matter, as in walnut hulls. Even the larvae of infected flies grown in the manure pile seem to possess the same virulence as those grown in carrion.

The history of the farm of Mr. George Foils is extremely instructive in this connection. Mr. Foils was born and brought up on the farm, and is an exceedingly intelligent observer. He never heard of limber-neck until ten years ago, although prior to that time he had not taken any of the precautions prescribed by the authorities, namely, that of burying or burning all dead animals. Every summer his chickens had devoured the larvae in carcasses left on the ground, and had never suffered any harm. Ten years ago limber-neck appeared in the county and two years ago it appeared for the first time on his own farm. Having become aware of the danger from carrion he had carefully guarded against it; nevertheless, his chickens began to fall off the roost, dying, and were carried off by the wheelbarrow-load. This was in the month of May, and he soon observed that whenever the fowls gained access to the manure pile after a warm rain and gorged themselves with the maggots which abounded in this hot-bed, they died speedily of limber-neck. He made this discovery too late to save his fowls for that summer, but he proceeded at once to do away with the manure pile and to keep the barn-yard clean for the rest of the summer. Early the following spring he cleaned up his barn-yard and was able to raise a large number of chickens without losing any. It was evident that infected flies from his neighbor's farm followed the horses to his barn-yard and deposited their virulent larvae in the manure pile, or perhaps the infection was brought to the flies at his stable by buzzards, for it is inevitable that the dejecta of carrion-eaters should contain the infection. A large amount of evidence gathered in the last eight months, and experiments conducted in the labo-

ratory, would justify us in saying that the consumption of ordinary carrion, or of the larvae of uninfected flies, is harmless to poultry and the other scavengers of the farm: while on the other hand, from numerous facts collected from the farm, we are able to say that the larvae of flies, which have fed on a limber-neck carcass, contain a virus: and a concomitant toxin which produces speedy paralysis. I regret exceedingly that the final proofs of this theory are wanting, in as much as I have been unable to obtain a limber-neck carcass, though I have been advertising for one throughout the South since February last. We have kept a young monkey for weeks awaiting his dose of virulent larvae, which may arrive any day, and we confidently expect to see him paralyzed thereby. The rapidity with which the paralysis takes place after the ingestion of the infective material has given rise to the assumption that the poison was a ptomaine, although there is no precedent to this hypothetical animal alkaloid possessing such fearful toxicity.

This anomaly, when compared to the course of all other infectious diseases, is due to the fact that this is not only an infection, but a toxoinfection. In other words, the virus originally finds its highest development, with the production of a large amount of toxin, within the larvae of the potentially infected mother fly. No doubt the virus does accommodate itself to other environment, especially to the growing tissues of the young of higher animals, requiring as it does primarily, though not exclusively, the larval fly as the intermediary host. This mode of infection would adequately explain the erratic incidence of poliomyelitis. For instance, one child was affected on a small farm and eleven escaped, and such instances are the rule rather than the exception in most seasons when the disease does not reach epidemic proportions. An organism which multiplies in milk, for instance, would not produce such a phenomenon. It is possible that one mode of conveyance is by inoculation from the bite of a potentially infected fly, though my investigations do not seem to lead to that conclusion. The swallowing by a child of the ova from an infected fly, deposited in bread or cold meat or fruit, is a possible and yet rare event under ordinary conditions, which would explain all the mystery of the incidence of this strange disease occurring as it often does on a remote farm in a child who has never been off the place and has seen no human being who could possibly convey the infection. On inquiry soon after the illness, we find, in many instances, that an unexplained death amongst the poultry or the hogs, or the occurrence of acute paralysis in the dog, which was put to death for dumb rabies, had preceded the illness of the child. I never imagined that the final experiment would be lacking prior to the date of the reading of this paper, but being scheduled to read it, and having

the courage of my convictions, I dare to pursue the unorthodox course of promulgating an unproved theory, in the firm conviction that a few weeks at most will justify my course. My conscience constrains me to do this, seeing that the fly season is just opening, and time is of the utmost importance, for if the people be warned, many children may be saved this dreadful affliction by precautions taken against flies. To return, then, to the subject of our paper, prophylaxis of poliomyelitis, in the light of this theory. That ubiquitous bird, which is regarded as the guardian angel of this country by the legislative bodies of all the states, and which should have displaced the eagle on our coin—the buzzard—is perfectly capable of transmitting many of the infectious diseases of live stock to every farm in the United States within a week.

We certainly have no occasion to ridicule the Chinese for their protection of the sleeping subjacent dragon which has barred access to the vast mineral wealth beneath the soil for ages, while we so sacredly regard this bird, which is a disgrace to modern civilization and which could and should be exterminated at once. The destruction of all the cattle of the Barotse and other central African tribes, who were once rich in live stock possessions, by the migratory germ-laden buzzards, should have been a sufficient warning to our law-makers. The fact of the legal protection of the life of the buzzard in America, in this Anno Domini, 1913, will undoubtedly go down in history as one of the most frightful examples of human folly in the annals of time.

The buzzard could be exterminated within a short time by the judicious distribution of a few doses of strychnin in every county in the United States, to be injected into the carcasses of animals. There has as yet been no effort made to exterminate the fly in the rural districts, and no successful effort in the cities, although we have the examples of England and Bohemia to guide us—countries which are almost free of flies, and which by the way have escaped the terrible epidemics of poliomyelitis. The traditional manure pile must be abolished or at least screened, as urged by Dr. Howard some years ago. In fact, all filthy places must either be done away with or screened.

Moses, the great law-giver, promulgated the first law of communal hygiene, which has been the guiding principle of hygienists ever since. He enjoins sanitation as an act of piety: and it has devolved on modern bacteriologists to discover that what people will not do from pious motives is necessary in obedience to the law of self-preservation.

The heart of the stoutest worshipper of Beelzebub (*Deus Muscarum*, or, as some scholars translate it "*Deus Stercoris*," showing that, in the minds of the ancients, flies and filth were

synonymous) must quail before the revelations of the modern science of epidemiology.

There should be a weekly cleaning up, and so soon as the farmer realizes that most of his poultry and hogs may be lost through failure to fight the flies, his favorite dog paralyzed and his children rendered cripples for life or worse, he will address himself with great earnestness to the task. Wherever infected flies already exist on the farm extraordinary measures will have to be taken and the poultry should not be allowed to run at large until the infection is removed. Hogs and poultry should never be allowed access to the barnyard. Horses from an infected farm should not be allowed to bring flies with them. In the case so well reported by Dr. Moss, the farms were situated at a crossroads and horses, no doubt, transferred infected flies daily.

The public roads should be provided with toll gates, where, for a small charge, horses, and especially caravans, with their commissary wagons, should be thoroughly sprayed.

Dr. Woodson and Dr. Skoog have mentioned the instance of the threshing machine which traveled through Kansas and Nebraska, leaving infantile paralysis in its wake. The two theories of dust infection, and of infection by immune-breeders, have been invoked in explanation of this occurrence; but the transportation of infected flies will, I believe, be established as the real cause.

The counties should establish these toll gates under the supervision and with the help of the state health authorities.

Fortunately for the city dwellers, the market wagons come into the city only during the night, otherwise there might have been far worse epidemics in the cities.

Dogs, which are so partial to carrion, may bring the infection from distant farms, where they have devoured a limber-neck carcass. What the buzzard is to the country, the garbage wagon is to the city. If flies were purveyors of good health, instead of disease, they would find in the garbage wagon the very best and most scientific aid in their beneficent work. I really believe that there would be less danger in allowing the garbage to lie in the alleys and rot, than to gather it and transport it after the manner in vogue in all cities at present. Every garbage can should, by law, be furnished with a fly-trap surmounting it, and every garbage wagon should be sprayed with one of those efficient compounds which the dairymen use with such success, so that the swarms of flies which now ride on their chariot would be kept at a safe distance. The cleaning of every stable and alley should be done by the city just as systematically as the streets are cleaned. All poultry yards within the city limits should be watched. A practical militant entomologist should be appointed by the city, after the example of New York. As to per-

sonal hygiene, no child should be allowed to eat out of doors during the fly season, unless protected by mosquito netting, and no bread, cold meat, fruit or any article of food which attracts flies should go into the mouths of children without reasonable assurance that it has not been contaminated, or is sufficiently sterilized. Baker's bread should always be put into the oven or passed through a flame. The same precaution should be used in regard to all bread stuffs. I have seen a large maggot in the center of a cracknel where a fly had deposited its ova through the little fork hole.

Note.—Even the most scientific poultry-raisers have sporadic cases of paralysis amongst their fowl, due to the devouring of a female infected fly with its contaminated ova by the chicken. These cases are very much milder than those of the epizootic type, due to the ingestion of large numbers of virulent larvae. The same variations in the dose of toxin swallowed, as well as in the quantity and virulence of the virus at work, would account for the great variations in the suddenness and severity of cases of poliomyelitis. It is conceivable that virus immunity and toxin immunity are distinct and separable conceptions; in other words, that an animal might refuse to act as host to the virus, and yet be paralyzed speedily by one large dose of the toxin abounding in the fly larvae.

The poultry journals advise the use of castor oil and turpentine in the early stages of limber-neck, and the farmers believe that good results are obtained. This treatment seems eminently rational and might be used with advantage in the case of any child taken suddenly ill with gastro-intestinal symptoms, under suspicious circumstances, but inevitably the theory of a toxoinfection leaves but little scope for a hopeful therapeutics.

In choosing a summer resort, parents should inquire carefully as to the existence of limber-neck, and no locality where flies are cultivated should be chosen.

Last summer this region had a plague of biting flies, which caused great suffering to the cattle, and did not spare human beings; but it bore no relation to the incidence of poliomyelitis or of limber-neck.

CONCLUSIONS

1. The mysterious sporadic occurrence of the majority of cases of poliomyelitis, as seen in our part of the world, always during the fly season, having no relation to any preceding or subsequent cases of the disease; and, broadly speaking, bearing a long-observed relationship to a virulent paralytic epizootic disease amongst fowls, and affecting other scavengers, may be most rationally accounted for by the assumption of the accidental ingestion of specifically virulent larvae from potentially infected flies, which have fed on

"limber-neck" materies morbi, thus producing both an infection and an intoxication (seeing that the toxin is already formed in the larvae); hence the unparalleled rapidity of onset of the symptoms.

2. The fly must be eliminated as far as possible, and the buzzard utterly destroyed. He has been the official undertaker too long; his services are too costly. Let his office be abolished and himself slain.

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THE X-RAY DIAGNOSIS OF THORACIC ANEURYSM*

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Not long ago a colored woman was sent to Washington University Hospital with a diagnosis of alcoholic gastritis. The clinician, Dr. Albert E. Taussig, into whose care she was assigned, introduced a stomach tube and on withdrawing it noted a show of blood on the tube. The possibility of aneurysm occurred to him, but a rather thorough examination failed to elicit any other physical signs. He thereupon referred her to me for fluoroscopy, and the *x*-ray showed an aneurysm of the aortic arch.

The instance was so striking, both to the clinician and myself, that it has stimulated me to report a few cases, showing the frequent inadequacy of physical signs to determine a diagnosis, the danger of certain instrumentation, the ease with which they are often solved by the *x*-ray and, hence, the necessity of skiagraphy in suspected cases.

Aneurysm has a considerable array of signs and symptoms. Among them are pain, cough, asthma, hiccough, vomiting, dysphagia, hemoptysis, herpetic eruptions, edema, inequality of pulse, laryngeal palsy, venous stases, tracheal tugging, bruits, inequality of pupils, pleural effusion, bulging of chest wall, front or back, and increased area of dullness. Unfortunately, not one of these symptoms is pathognomonic, and may be produced by causes other than aneurysm. On the other hand, a large aneurysm may exist with few of the signs enumerated present. There are also many cases in which the sac is small or sometimes even large, and the clinical manifestations insignificant, to which the term "latent" aneurysm has been applied. The adjective is not altogether felicitous, for any lesion is either present or absent, but "latent aneurysm" is just about as accurately descriptive as "latent malaria." And it is precisely this sort of aneurysm that is discovered more readily by the *x*-ray

than by any other test. In fact, the clinical evidence of aneurysm consists mainly of the signs and symptoms of increased intrathoracic pressure, and in the initial stage this pressure may be almost, if not quite, negligible. Here, too, a diagnosis is more valuable to the patient than in the advanced stage. A detailed classification of aneurysms is not essential to the purpose of this paper. Such divisions are purely arbitrary and depend on the basic viewpoint of the classifier. Roentgenologically, their size, form, situation and expansibility being of chief interest, can be determined as a rule, and require no special catalog.

The technic of fluoroscopy for aneurysm has become well established and the routine is about as follows:

First of all, a careful physical examination is made to eliminate the possibility of bony abnormalities in the thoracic cage. Deformities of the vertebrae or of the sternum from disease may displace the aorta in such fashion as to simulate aneurysm.

In posing the patient before the screen, various positions may be employed. Of these the most practical are the anterior, posterior, right anterior oblique and left posterior oblique.

In the anterior view, the screen being in front (or posterior, the screen behind), we observe in the normal chest a central opacity with light areas on either side. The opacity is produced by the vertebral column, sternum, heart, aorta, pulmonary vessels, etc. The heart shadow projects somewhat to the left of the spine and is visible to a less extent on the right. The curved bulge of the aorta is observed above the heart and to the left of the sternum. In some cases the aorta may extend slightly to the right. Between the aortic bulge and the heart, on either side of the spine, at the hilus of the lung, are seen the trunks of the pulmonary vessels, bronchi, glands, etc., in a more or less confused mass. Below this on the left, is a third bulge, the left ventricle. On the right of the sternum are seen two curved projections, an upper and lower, produced respectively by the superior and inferior vena cava, the lower bulge, perhaps, also including the right auricle.

The right anterior oblique view is attained by placing the screen in front of the patient to the right of the median line and the tube behind him to the left of the spine. This gives a more complex picture and is of especial use in studying the normally clear space lying behind the heart and in front of the vertebral column—the retrocardiac space.

The left posterior oblique, which is the reverse of the above, the tube being in front and the screen behind, is useful in studying the esophagus. The posterior mediastinal space is, however, rather less distinct in this view.

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Transverse, or lateral, examinations are not very informative, because of the greater distance through the patient. The left lateral, with the screen on the left side and the tube on the right, is that most commonly employed.

For satisfactory screen work, certain precautions are essential. The observer should be in the dark room fifteen or twenty minutes prior to the examination in order that his eyes may reach a maximum of accommodation to the dim light. Prolonged examinations should be avoided because of possible danger to both observer and patient. A third obvious essential is familiarity with normal appearances in order that abnormal shadows may be recognized.

Aneurysms are distinguished fluoroscopically from other tumors by their position, which is usually high, and by their pulsation, which is of an expansile character. This expansile pulsation is especially marked in simple dilatations (which may or may not be beginning aneurysms) and is less marked or even absent in advanced cases, where the sac is filled with clotted blood. Here only pulsation without expansility is seen.

Dilatations are differentiated from aneurysms by the fact that between pulsations the vessel recedes to its normal size and situation, while in aneurysm the tumefaction, of course, persists between pulsations.

In late cases, with large aneurysms, the heart is sometimes displaced downward into a transverse position which may be more or less diagnostic.

Caution is sometimes necessary in differentiating enlarged lymph-nodes and other tumors from aneurysm, because in some situations, though rarely, pulsation is communicated to them by adjacent large vessels. They do not usually pulsate because of the adhesions they produce. The periphery of tumors and swollen lymph-nodes is usually less well defined than that of an aneurysm.

Differentiation of abscesses may occasion some difficulty. However, their situation, shape and lack of expansility will usually be sufficiently determinative. If not, the clinical history will, as a rule, decide the matter.

Consolidated areas of lung, mentioned by Hayes (*Dublin Jour. Med. Sci.*, 1912, p. 257), theoretically have some points of resemblance to aneurysm, but practically I believe the differences would be obvious. Jordan (*Brit. Med. Jour.*, 1910, p. 1575) very sensibly reasons that the only form of aneurysm which will not be revealed by either the anterior or oblique screen examination, is a small aneurysm confined to the concavity of the arch. But this is usually associated with general dilatation of the arch and symptoms due to pressure on the recurrent laryngeal nerve. Hayes observes that that part of the aorta at the junction of the transverse and descending portions, called by Walsham and Orton,

"the left lateral aortic bulge," as seen in the anterior view, is not very prominent in young people and females. Its size and situation must be carefully noted to avoid error.

Lange (Cincinnati *Lancet-Clinic*, Feb. 19, 1910) has constantly found that the act of swallowing a capsule of bismuth is retarded in patients having thoracic aneurysm, even though the latter be small. When the aneurysm projects backward in such fashion as to exert pressure on the esophagus, this sign would naturally follow. But with aneurysms which do not come into contact with the esophagus, I can see no reason for the phenomenon other than the fact that in normal deglutition the bolus may hesitate at any point in its descent, especially just before entering the stomach, and still more especially if the bolus be a large capsule.

Alterations in the level of the diaphragm, noted in thoracic aneurysm, seem to me so variable as to lack diagnostic value. Hayes has observed that the right diaphragm is normally about one-quarter inch higher than the left and that the diaphragmatic excursion is from one-half to three-quarters of an inch in quiet respiration, while it is two or two and a half inches during forced breathing. Lange finds that in small aneurysms, that half of the diaphragm toward which the tumor bulges stands much lower, whereas with large aneurysms the corresponding half-diaphragm stands higher. He accounts for this on the theory that small aneurysms irritate the phrenic nerve, while large ones paralyze it. Since the behavior of the diaphragm is not essential in the radiology of aneurysms, and since its alterations of level are not yet well understood, probably being subject to numerous normal and abnormal factors, I have not occupied myself with the matter.

Aneurysms of the branches given off by the aortic arch cannot be seen quite as distinctly as those of the main trunk, because of the narrowing of the thoracic cage at the top and the greater density of the structures external to it. An aneurysm of the innominate and one of the subclavian are included in this series. The latter cannot be easily distinguished in the skiagraph.

While the *x-ray* is strikingly successful in revealing the existence of aneurysms, and almost indispensable in the elucidation of details, it will not always make the diagnosis independent of the clinical findings, and the final judgment should rest on all the evidence obtainable from every source.

Here I wish to reiterate a statement which I have made several times, and with which most roentgenologists agree: namely, that the radiographer should be made acquainted with all the information obtainable regarding any patient prior to *x-ray* examination. The fear sometimes expressed that the radiographer's opinion might

thus be prejudiced, does not deserve serious consideration.

Orthodiagnosis at regular intervals will determine whether or not an aneurysmal sac is enlarging or diminishing.

Plates are sometimes a useful adjunct in diagnosis by revealing finer details than those shown on the screen, particularly stereoscopic plates.

In these case reports the *x*-ray findings are given as recorded by the skiagraphs, but in most instances the diagnosis was based on fluoroscopy. Where the fluoroscopic appearances were fresh in mind, these are also given.

The original histories, which with few exceptions are quite complete, are here condensed as much as possible. Negative findings, unless extraordinary or significant, are mostly omitted.

It is worthy of note that in the series of cases here related, the most constant symptoms were cough, dyspnea and pains in the chest, neck and arms. This may bear some relation to the fact that aneurysm is sometimes mistaken clinically for tuberculosis or rheumatism by hasty diagnosticians.

Clinicians will perhaps be interested in the temperature of the patients in this series. In nearly every one a considerable rise above normal is noted at some time during the period of observation, and in fact, rarely went to normal. Whether or not this is of any significance seems worthy of investigation.

Syphilis, as shown by the history or by the Wassermann, was found in every case where a complete clinical examination was made.

In nearly all the aneurysm was of considerable size and the clinical diagnosis was not especially difficult, but in two of the cases the *x*-ray was of material aid, and in all of them determined the situation and extent of the aneurysmal sac.

The almost invariable involvement of the descending aorta deserves mention.

Unless otherwise noted all the cases occurred in the service of Dr. George Dock, Chief of the Department of Internal Medicine, Washington University.

REPORT OF CASES

CASE 1.—J. R., age 61, white, German, laborer, admitted April 22, 1912, to Washington University Hospital.

Complains of "heart trouble" and "shortness of wind." Is short of breath, especially upon exertion. No palpitation, no precordial or pleural pains. Had sore on penis eighteen years ago and was treated. Disappeared in three or four days. No secondaries. Drinks moderately; two glasses beer daily, occasionally whiskey. No trouble or pain in swallowing food.

External jugulars on both sides are distended. Slight prominence to right sternum in neighborhood of second and third ribs. Area is seen to heave slightly with the heart beat. On palpation, no thrill felt.

Percussion: Area of dullness continuous with cardiac dullness to right of sternum in neighborhood of second to fourth rib and extending to mid-clavicular line on right side. Breath sounds show normal vesicular quality, but more pronounced on right side. Apex beat visible in fifth i. c. s. 7 c.m. from m. s. l.

Auscultation: Systolic murmur, short and moderately harsh, heard best over third rib, just to right of sternum and transmitted slightly downward. First sound at apex is of lax character and faint. Over entire cardiac area second sound is the more prominent and reaches its maximum intensity at same point where murmur is heard loudest. Arteries throughout show marked tortuosity and hardness.

Wassermann, negative.

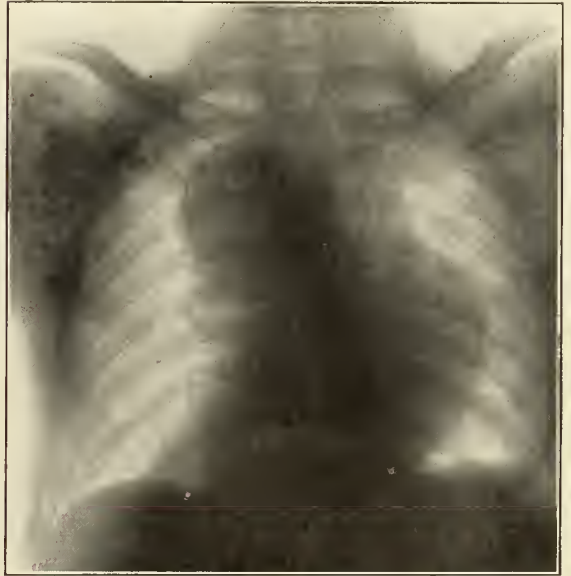
Temperature varied from 97 to 100 during ten days' stay.

Clinical diagnosis: Aortic aneurysm.

Skiagraph: Large aneurysm of entire arch and descending aorta. Atheromatous plaques seen in wall of aortic bulge to left of spine. Heart enlarged, occupies oblique position, two-thirds being in right chest. This latter circumstance rendered interpretation difficult and caused the clinicians to believe that the skiagraph had been erroneously transposed.

Fluoroscopy confirmed the findings as above given.

Dr. Brotherhood writes, May 2: "This case has been most interesting, owing to the marked disparity between the outlines of thoracic dullness made out on percussion and the outlines of shadow in *x*-ray plate and fluoroscopic study."



Skiagraph of Case 1.

CASE 2.—T. M., age 59, admitted to Washington University Hospital, Oct. 15, 1912.

Complains of pain in shoulder and shortness of breath on exertion; no edema; palpitation of heart and precordial soreness. Thirty years ago had sore on penis followed by alopecia; sores in mouth and throat and on legs.

Present illness began eighteen months ago; dull pain in left shoulder during day. Relief by lying down. At times neck would swell at back. Dizziness lasting only a few minutes. Dyspnea on exertion. Nine months ago began to lose voice.

October 19: Patient lies comfortably in any position; no dyspnea, but speaks in hoarse whisper. Pupils equal; tongue extruded to left on grinning. The left angle of mouth opens more than the right; can barely whistle; muscles of upper half of face not involved; neck negative; no venous pulse. Heaving systolic impulse under upper sternum and in left first and second intercostal spaces; no thrills; pupils react to light; tongue and uvula deviate to left. Pulse: No

radial pulse perceptible, though at times there is a suggestion; vessels slightly thickened.

Laryngoscopic examination reveals considerable swelling of the epiglottis, and folds of the larynx well marked; paralysis of both vocal cords; no ulcers or scars.

November 5: Patient still complains of hoarseness, cough, deafness, pain in left shoulder and dizziness when he stands up. Pupils equal and active; tracheal tugging present. Expansile, heaving pulsation in left first and second intercostal spaces; slight heaving of the sternum. No shock or thrill present. Increased retro-sternal dullness; cardiac dullness to nipple line on left; systolic murmur at apex transmitted to axilla; diastolic murmur at base extending to second interspace, pulse not felt in carotids or radials. Had sore on penis about thirty years ago; lost his hair; had sores in mouth, throat and on legs. Does not remember any glandular enlargements or skin eruptions. Temperature ranged from 97 to 101.

Wassermann, positive.

Clinical diagnosis: Aneurysm of arch.

Skiagraph: (antero-posterior.) Marked aneurysm involving arch and descending aorta. Heart rather horizontal. Combined shadows make figure eight. Trachea shown markedly displaced to right of arch.

Skiagraph: (left posterior oblique.) Marked broadening of arch and descending aorta, obliterating retro-cardiac space and overlapping spine shadow in middle and lower intra-thoracic half.

Fluoroscopy: Same as above. Expansile pulsation observed.

CASE 3.—R. S., admitted Jan. 19, 1912. Age 30, negro; died Feb. 25, 1912.

Complains of pain in chest and shortness of breath. Had two attacks of gonorrhea; also had two sores on penis which he treated himself. Patient drank heavily, but not of late.

In January, 1911, first noticed shortness of breath and pain in chest; could breathe better when sitting up than when lying down.

Chest: There is bulging of precordial region; diffuse apex beat; no murmur; enlarged cervical and inguinal glands.

January 31: Patient complains of pain across upper back in both suprascapular fossae; voice is very weak; cough has brassy tone; few moist râles heard from both backs, and in left anterior axillary line. Systolic murmur audible at apex, transmitted for short distance; slight increase of cardiac dullness on right; no pulsations are perceptible; no diastolic shock; left radial pulse just perceptible; right low; tension irregular, 110 to the minute. Temperature ranged from 99 to 106½.

Wassermann, positive.

Clinical diagnosis: Aneurysm.

Skiagraph: Aneurysm involving arch and descending aorta. Heart greatly enlarged and shows a distinct bulging of left auricle.

Anatomical diagnosis: Aneurysm of arch of aorta, mitral insufficiency, cardiac dilatation, general ana-sarca, tuberculosis of the bronchial lymph nodes.

CASE 4.—C. J., colored; aged 39; admitted Oct. 20, 1911.

Present illness began fourteen months ago with pain in left thorax after lifting; has continued ever since, very bad last three weeks; easier when lying on left side. Cough for week. Pupils equal, react to light and accommodation. No glandular enlargement. Percussion note resonant over upper right front; but definitely impaired over left upper; left back dull in upper part; slight tracheal tugging; heart not enlarged; sounds at apex distant; aortic systolic murmur; pulsation of prominence; diastolic shock; pulses equal. Spleen and liver not palpable; no edema. Urine and blood negative. Temperature ranged from 98 to 102.

Wassermann, positive.

Clinical diagnosis: Aneurysm of arch of aorta.

Skiagraph: Large aneurysm of ascending, arch and descending aorta; the last being most marked, forming the characteristic, dumb-bell shadow.

Fluoroscopy showed no expansile pulsation. In the right anterior oblique position, the retro-cardiac space was obliterated.

CASE 5.—M. T., aged 42, negro laborer, admitted April 23, 1912.

Complains of throat and stomach trouble; pain in neck, shoulder and joints. Sore on penis twelve years ago and lasted two weeks. Eruption on back and legs about eight months afterward. Took treatment and it soon disappeared.

Present illness.—The patient for the last two months has had a "slow" pain in epigastrium which comes and goes, and is not associated with eating. The throat in the region of thyroid is "sore" at times, but it does not hurt him to swallow. When he takes a pill it appears to stick at that point and causes him to drink much water to wash it down.

Eyes: Pupillary reaction to light absent, slow to accommodation.

Chest: Heart impulse not seen or felt. Heart sounds clear. First sound feeble, second accentuated. No murmurs; pulse, 64; blood-pressure, 128. Lungs resonant throughout. No adventitious sounds.

Heart: Diffuse apex beat in the fourth and fifth intercostal space inside midline. Right cardiac dullness extends 9 cm. to left in fifth intercostal space, 7 cm. in fourth and 3½ in third; above to the top of third rib on left and to right 4½ cm., the cardiac dullness extending 6 cm. to right in first interspace and 3½ cm. to left. There is no visible pulsation or palpable shock over precordia. Marked accentuation of second sound at apex and in pulmonic area. No murmurs heard. Pulses equal and regular. No pulsation in neck. No tracheal tug.

Diagnosis of recurrent laryngeal paralysis (left) by Dr. W. E. Sauer.

Patient discharged May 9, saying he felt much better. Physical signs about as on admission.

Wassermann positive.

Temperature for fifteen days varied from 97 to 100.5 F.

Diagnosis: Aneurysm aortic arch. Paralysis left recurrent laryngeal nerve.

Skiagraph: Early aneurysm of arch and descending aorta.

Fluoroscopy: Showed broadened arch with expansile pulsation and descending aorta obliterating upper part of retrocardiac space.

CASE 6.—E. J., negress, aged 53, admitted Feb. 13, 1912; discharged March 16, 1912.

Complains of pain in chest and left shoulder. For several years past has been short of breath on exertion. When she was 12 years old she had a sore on the genitals which only lasted a short time. She has never had any skin eruption. She was married when 18. She has had four children, all alive and well. One miscarriage at first pregnancy.

About a year ago pain began to be felt in left armpit in front of chest. Had dyspnea, palpitation of heart and weakness; could not sleep well on account of pain. About four or five weeks ago patient was compelled to go to bed for the first time on account of pain, dyspnea, weakness, dizziness and sick stomach. Has never been troubled much with cough. Difficulty in swallowing for over a year. At times pain in the back of neck.

Pupils equal; react to light and accommodation; no tracheal tugging; no pulsation of tonsils. Lungs over back are resonant. Breath sounds normal over back; few moist râles; apices resonant over upper front. Faint systolic bruit is audible over chest. Patient given intensive treatment with potassium iodid in-

creasing grains one daily. There is fulness on left side, beginning at the fourth rib and extending up to the clavicle. Over this mass is seen a very distinct impulse; pulsation is not distinctly expansile. On auscultation little could be heard.

Temperature ranged from 98.5 to 102 F.

Wassermann positive.

Diagnosis: Aneurysm of arch of aorta.

Skiagraph: Large aneurysm of arch and descending thoracic aorta, almost filling the upper left thoracic cavity. Shadow merges with that of heart below, which is greatly enlarged. In the screen examination made previously, in the anteroposterior position, the aneurysmal mass showed very little expansility. In the right anterior oblique position the arch was greatly broadened, and the normally clear retrocardiac space was practically obliterated throughout. Excursion of the left diaphragm was interfered with and there was marked obstruction to the bismuth bolus.

CASE 7.—W. C. D., a driver, aged 40, came to the medical clinic Oct. 11, 1911.

Complains of pain in left side, which he first noticed four or five days after a severe strain three months ago. Pulse 104. Pulsation in second interspace to left of sternum; also in the infrasternal fossa.

Patient says that for a year or more he has had occasional pains in the right arm, which he thought rheumatic. Slight cough ten years or more.

Numerous venereal infections, but none luetic that he knows of. Neck broad; pulsation both sides. Upper chest broad; lower end of sternum sunken. Marked pulsation in second and third interspaces to right of sternum. Apex beat in sixth space $1\frac{1}{2}$ inches to left of nipple line. Dulness over pulsating area, which is tender; also across upper end of sternum. Systolic murmur at apex, not transmitted. Systolic and diastolic murmurs over pulsating areas.

Clinical diagnosis: Aneurysm of ascending and descending arch.

Treatment: K. I. No improvement nine days later.

Skiagraph: Large aneurysm of the ascending, transverse and descending aorta, which together with the heart shadow makes a figure 8 or dumb-bell. This is so frequently seen as to be almost characteristic. The heart is somewhat pushed down and to the left. Right diaphragm about an inch higher than left.

CASE 8.—A. S., widow, aged 38, seen in the medical clinic Feb. 29, 1912.

Complains of pains in back, neck, left arm and leg, particularly severe in the joints. Family history negative. In suprasternal notch there is marked pulsation to palpation. Systolic murmur over upper portion of sternum not marked. No hypertrophy of heart.

X-ray March 1, 1912. Screen shows the arch seemingly higher than normal in suprasternal region and projecting slightly to the left. Question of substernal thyroid or aneurysm.

March 7 referred to hospital.

Temperature varied from normal to 100.2 F.

Skiagraph: Shows a small aneurysm of arch of aorta. Heart practically horizontal, which, considering the small size of the aneurysm, seems peculiar.

Fluoroscopically, anteroposterior, there was marked bulging of the aorta to the left of the sternum, with marked expansile pulsation. In the right anterior oblique the aorta was broad, bulging backward, obliterating the retrocardiac space for some 2 inches.

The x-ray definitely decided the diagnosis as between aneurysm and substernal thyroid.

CASE 9.—J. P. G., aged 38, first seen Feb. 5, 1909. Family history unimportant. Syphilis eighteen years ago; treated about four years, with no manifestations since.

For about two months has had pains in chest and back. Coughs on sitting erect and when lying in bed on back, but not when bending forward or when lying on sides. Temperature 99.6. Physical exami-

nation of lungs shows some dulness at right sterno-clavicular articulation with cogwheel breathing. Sputum examination negative.

Nov. 24, 1909: Examination shows pulsating area under manubrium. Suggestion of a tracheal tug. Right radial pulse 123, left 128. X-ray examination next day showed aneurysm of ascending and transverse arch. Patient given Tuffnell treatment and K. I. in increasing dose. Oct. 24, 1910, can get about with practically no pain. Iodid had to be stopped because of rapid pulse.

Nov. 23, 1910: Prominence marked, distinct tracheal tug.

Dec. 22, 1910: Pulse 80. Cough better.

Feb. 10, 1911: Prominence of sternum increased. Patient has gained 5 pounds in weight. Still coughs when he lies down.

After the Tuffnell treatment had been systematically carried out for some months under the direction of Dr. Elsworth Smith at Mullanphy Hospital, this patient was able to leave his bed and take up active work again.

Skiagraph: Aneurysm of ascending aorta and arch. Heart small, almost vertical.

Fluoroscopy: No expansile pulsation; evidencing well-organized clot.

CASE 10.—L. T., negro, aged 45, admitted Jan. 8, 1912; discharged March 15, 1912, improved.

Complains of shortness of breath; pain in left shoulder and arm. Patient says he has aneurysm. Was told so by a physician. Says parents both had syphilis before he was born. For last two months has had dizzy spells and felt faint; had shortness of breath for last two months. Had syphilis in 1890; never took syphilitic treatment except a bottle or so of blood medicine. Drinks moderately and smokes five or six cigars daily. Three months ago left shoulder and arm began hurting considerably and thought it was an attack of rheumatism. Later noticed enlargement in left side of the neck about the size of a walnut. Swelling increased and pain became much more severe.

Patient looks sick, as if in great pain. Eyes react to light and accommodation. Pupils equal. No sores; no glandular enlargement; chest symmetrical; vocal fremitus better on right side. Breath sounds are everywhere. Back resonant to bases; vocal fremitus present throughout; no adventitious sounds; radial pulse about equal. Blood-pressure: minimum 95, maximum 155.

Temperature ranged from 98 to 103 F.

Wassermann positive.

Clinical diagnosis: Aneurysm, thoracic arch and left subclavian artery.

Skiagraph: Small aneurysm of arch of aorta. Descending aorta seemingly not involved. Left subclavian rather indistinct; bulging of neck base is seen.

CASE 11.—W. H. B., engineer, aged 54, seen April 15, 1912, in the neurological clinic. For past year has been having pain in chest. Came on first time after an unusual exertion. Pains come and go. Feels worse in evening. Arteries show high tension. Slight inequality of pupils.

Clinical diagnosis: Lithemia.

Skiagraph: Aneurysm of arch of aorta; descending aorta involved, but to a lesser extent. Heart rather horizontal; not enlarged.

No fluoroscopy.

(This was a dispensary case, and the very brief clinical history indicates that for some reason no careful physical examination was made. The case is cited for its interest and not as a proof of the superiority of the x-ray as a means of diagnosis.)

CASE 12.—W. S., aged 58, admitted to the medical service Jan. 26, 1912, complaining of enlargement high up on the middle chest. Family and past histories negative. Alcohol to the point of intoxication fre-

quently. Two years ago first noticed pulsation in the right third intercostal space near edge of sternum. Pain in right shoulder and arm. Cough present since beginning of enlargement. Tumefaction projecting from surface of chest in upper sternal region, extending almost a third above the clavicles, has an irregular outline and definite expansile pulsation. Definite diastolic shock, no bruit. Cough brassy in character; faint trachea tug. Pulse 80, the right being slightly stronger than the left. Vessel walls slightly thickened. Soft systolic murmur at apex. No murmurs at base.

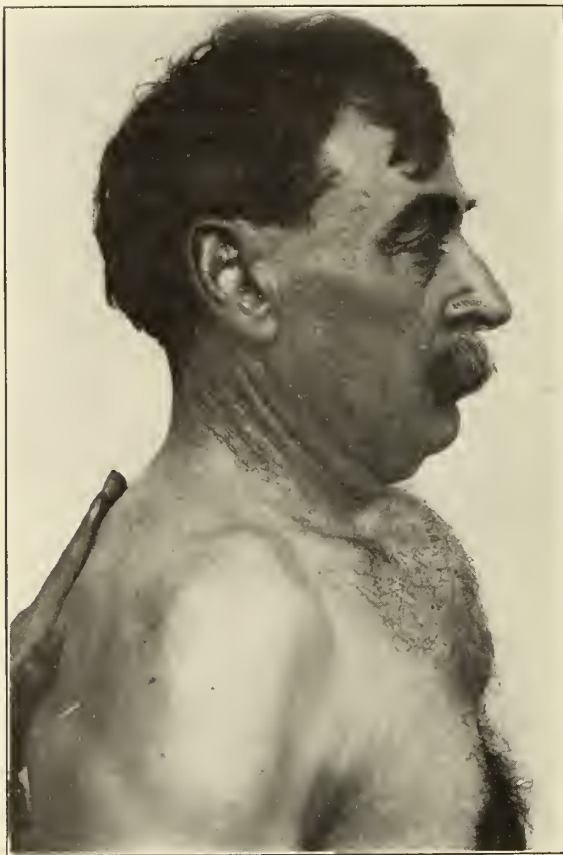
Feb. 28, 1912, patient left the hospital, saying he felt much better but there was practically no change in size of tumor, its vertical diameter being 16 c.m. and its horizontal diameter being 18½ c.m.

March 19, 1912, patient returned to hospital to have aneurysm wired. March 20 his condition about

Subsequent roentgenograms April 1 showed that not more than six inches of wire had been introduced on March 25.

Post-operative history: Patient has been very comfortable; the subjective sensation of pulsation is less marked than previously. Objectively there is no change in the size of the tumor but the pulsation especially in the lower half of aneurysm seems distinctly farther from the palpating finger. Expansile character still retained, especially marked at upper pole. No complications thus far.

April 4, about 7 feet of wire introduced into sac at point opposite to site of previous introduction of wire. Slight bleeding through needle, immediately after introduction which soon ceased. Had no pain or discomfort during procedure. Current passed again at above mentioned time. April 10. Since last operation course has been uneventful. The pulsation is markedly decreased, especially in the lower portion of tumor. This is becoming more marked all the time and has been observed by the patient himself. At the upper pole there is still a good deal of pulsation, but the expansile character has been diminished throughout.



Photograph of Case 12.

the same as on discharge from medical service. Has been taking K. I. gr. 40 t. i. d.

March 23, under local anesthesia, 4½ feet of special aneurysm wire was introduced into sac by Dr. Fred T. Murphy, chief of surgical department. This amount was all that could be passed, as the wire met with some obstruction in the sac. Positive pole of galvanic current attached to wire and a current of 10 m.a. was passed for thirty min. and increased to 20 m.a. for 15 min. and 30 m.a. for 15 min. Total time, one hour. On introduction of needle there was no active bleeding through it, but a thin blood-stained serum collected in drops at intervals.

During this procedure the patient was conscious of no change in pulsation or otherwise, no discomfort was experienced.



Skiaograph of Case 12.

April 14. X-ray plates show that the wire has coiled up in what is apparently one of the pockets of the aneurysmal sac. There is still marked pulsation (expansile) in the upper portions, but the lower portion feels much firmer and pulsation here is distinctly less. There has been no growth of the aneurysm as a whole and the subjective symptoms have diminished.

Patient complains of rheumatic pains in both arms. Discharged to return in course of a few weeks for further wiring. Is still taking K. I. gr. 30, t. i. d.

Temperature ranged from normal to 102.

Wassermann positive on admission.

Clinical diagnosis: Aortic aneurysm.

Skiaograph: Aneurysm of arch and descending aorta. The coil of wire introduced by Dr. Murphy is seen at the junction of ascending aorta with arch.

Fluoroscopy: Anteroposterior diameter of arch almost equal to lateral.

Photographs show bulging of chest.

Patient died Oct. 4, 1912, of broncho-pneumonia. Aneurysm had been oozing externally for several days prior to his death.

CASE 13.—D. M., colored, laborer, aged 50, came to the Medical Clinic, Oct. 27, 1909. He then complained of shortness of breath after slight exertion, dizzy spells, and pains over left sternocleidomastoid. He first noticed the pains in right side of neck under the mastoid process in January. He then noticed a tumor pulsating in the right axilla. Never had tingling sensation in arm but has cramp. Family history incomplete, not significant. Uses alcohol moderately; tobacco excessively. Had many pimples on penis twelve years ago. No secondaries noticed.

Veins of neck dilated and knotted. Hard tumor in axilla that fluctuates and pulsates. Pulsating tumor in subclavicular region. Lungs seem normal. Cardiac apex beat in sixth interspace, one inch to left of nipple line. Systolic murmurs. Difference in radial pulse.

Clinical diagnosis: Aneurysm of innominate, descending aorta and brachial.

Examined by the x-ray Nov. 11, 1910.

Skiagraph: Aneurysm of innominate arch and descending aorta. Heart much enlarged, about one-third in right chest.



Skiagraph of Case 14.

CASE 14.—C. T. D., male, aged 50, admitted Dec. 23, 1912. Previous health always good. Never ill until three years ago. Married. Six children, all well; wife had no miscarriage. Eight years ago had cold with expectoration; blood in sputum once. No expectoration since then. Three years ago began to have dyspnea on exertion. Two years ago, grip; heart worse; irregular. Great dyspnea on exertion; every effort causes coughing; also lying down. No edema, no cyanosis; urine always negative. Stomach and bowels negative; no pain.

Medium size, spare, looks much older than age; anxious expression. Great dyspnea after walking on level to room, with frequent dry hacking, but not harsh, cough. Face slightly flushed; no cyanosis; pupils negative. Thorax bulges in precordium and left side of thorax second to sixth rib sternum to nipple line; heaving impulse there. Rest of left side lags. Apex beat moderate in 5 i. c. s. outside nipple line. Sounds at apex moderately strong, clear.

Pulmonary second sound not accentuated. Over base and up left side of sternum soft systolic blow. Aortic second sound inaudible. Radials small, equal and synchronous on both sides, not quick. Blood pressure 130; diastolic unsatisfactory. No shock, no thrill. No murmur, shock or impulse in back. Breath sounds strong all over right; weak all over left, especially upper front and back. Liver and spleen not enlarged. No edema. Urine: no albumin; few hyaline casts.

Clinical findings: Aortic regurgitation. Hypertrophy left ventricle. Aneurysm or tumor (?). Fluoroscopy and x-ray plate advised.

Skiagraph: Very large aneurysm of descending aorta, beginning at the termination of the arch, projecting some two inches to the left of the sternum, and extending well down behind the heart.

Fluoroscopy: Same as above. Expansile pulsation noted. Retrocardiac space obliterated.

THE TRANSPLANTATION OF BONE *

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The recent development of modern surgical technic has at last placed the subject of bone transplantation on so firm and scientific a basis that it has finally made it a satisfactory and safe procedure. In fact, it has been found to be the only one that will cause union in many cases of obstinately ununited fracture, and is often the only hope in bridging large bony defects, or preventing mutilating deformity.

My own experience has been confined, so far, to the treatment of ununited fractures, and the replacing of a portion of the inferior maxilla in cases of excision or resection of the lower jaw. The advantages and possibilities of this method of treatment are at once apparent. With proper asepsis, union is certain in even the most persistent ununited fractures. No unabsorbable foreign body is left in the wound, necessitating early or later removal. There is little if any delay in the establishment of bony union. Large deforming and often painful exuberant callus are avoided and function is much earlier established.

By bone transplantation bony defects may be filled and many possible amputations prevented. By this procedure the surgical field is materially widened, for patients will submit to a resection or excision of bone (as in tumor of bone or giant-celled sarcoma), when an amputation would be refused. The bone graft may be extended even into the joint cavity with assurance of success.

Within the past few years our ideas as to the repair of bone and the viability of transplanted bone have materially changed. Macewen has shown that small fragments of bone or "bone chips" may be detached and made to regenerate new bone when placed in contact or alone in living body tissue, and this without periosteum. Murphy has proceeded one step further and has

* Read before Jackson County (Kansas City) Medical Society, March 14, 1913.

transplanted large pieces of bone with or without periosteum with like success. There are, however, many points in the regeneration of bone and the viability and ultimate disposal of the bone graft that are still unsettled.

One of the most interesting of these is the part played by the periosteum. All the older writers on the bone pathology (which by the way goes back to the latter part of the eighteenth and the early part of the nineteenth centuries) laid special stress on the part played by the periosteum in bone regeneration. The writings of Dupuytren were generally accepted as conclusive, and for more than a century medical writers accepted his conclusions that bone was developed from practically the periosteum alone. Almost thirty years ago, however, Macewen began to doubt the correctness of this view. But it is only within the last few years, since his recent classic was published ("The Growth of Bone"), and the original work of Murphy, Ollier, Barth, Axhausen and others, that we have arrived at the proper conception of bone growth.

Wieder, in 1906, at the University of Pennsylvania, demonstrated by animal experimentation that the periosteum alone, either elevated or detached, could not reproduce bone. He did not, as judged by his published conclusions, apparently appreciate the full significance of his experiments. His work only confirmed that of Macewen, that some portion of bone, possibly often microscopic, must remain attached if the periosteum is to regenerate true bone. The conclusions of Macewen, however, are most convincing. He says:

"It may be deduced from the foregoing observations and experiments that diaphyseal bone is reproduced from the proliferation of osteoblasts derived from preexisting osseous tissue, and that its regeneration takes place independently of periosteum. The periosteum is not essential to bone production. Osseous tissue can pass through all the phases of its life, from its embryonic to its mature form, without the influence of or contact with this tissue. The periosteum is of great use in limiting within specific boundaries the distribution of the osteoblasts and preventing them during their evolutionary period from being scattered into the soft tissues where they are prejudicial to the function of these parts. In the loose areolar tissue existing between the periosteum and the bone, the osteoblasts find nutriment for their growth and space to generate, free from undue pressure. While not underestimating the periosteum as a limiting and protective membrane of great use in physiological and pathological conditions, there are no data to indicate that it can, of itself, secrete or reproduce bone. It has no osteogenic function."

Murphy,¹ in his last monograph on the subject, says: "Periosteum attached to the transplanted portion, if the graft is taken from young individuals, has a plus osteogenic influence; on the middle-aged it is neutral; in those of advanced years it plays a minus rôle and in fact it is detrimental."

In many cases failure of broken bones to unite is due to the fact that the bone-forming process reaches a certain degree of development and then stops. It is arrested before the gap between the bones is bridged over. The bone transplant acts as a superstructure or framework over which the osteoblasts are carried. When this structure has served its purpose it is then torn down, i. e., absorbed as its place is taken by new formed bone. "The graft," says Murphy, "is *per se* not *osteogenetic* but *osteoconductive*. The regenerative force and cells are entirely supplied from the living bone. The graft, however, is an absolute necessity in the regeneration." Such bone grafts, when properly placed, reach beyond the immediate area of transplantation and carry new bone-forming elements from uninjured bone itself. This is unquestionably one of the important reasons that union can be established even in those cases where there is absolutely perfect approximation of the fragments, and yet where no union had occurred.

How long the transplant remains in the tissue before its complete absorption is, as yet, undetermined. If firm bony union, however early, results even with the persistence of the graft, the ultimate disposal of the transplant becomes one only of academic interest. In one case in which he had occasion to inspect the bone about seven months after it had been embedded in the humerus, Murphy found the graft firmly united to the shaft. It had become viable new bone to all intents and purposes and when cut by the chisel bled freely, showing complete reestablishment of the Haversian system of blood-vessels in the transplanted bone itself.

The great secret of success in all bone surgery is asepsis. Without it failure is certain. As one's experience widens and his familiarity with the technic is perfected he sees how it is possible to operate these cases without even the gloved hand being placed in the wound. In my cases of bone transplantation I have been able to carry out this technic absolutely. I am confident it has materially aided in lessening the operative risk. Two of the cases herein reported have been fractures of the upper third of the tibia. Just why a break in this position fails so often to unite I cannot state, unless it is that the nutrient artery of the tibia is near and a thrombus of this vessel is the explanation.

Any portion of bone of whatever thickness may be transplanted. Macewen grafts small chips or pieces of bone, laying them in end to end

1. Murphy: JOURNAL A. M. A., April 6, 1912.

approximation when a large defect is to be filled. McWilliams has succeeded in transplanting a portion of the whole thickness of a rib devoid of periosteum. He, however, bored several holes in it in order to facilitate free access of the blood-supply. Carter has transplanted a piece of rib into the nose. He has split the rib, however, longitudinally and removed the medullary tissue. He states that if this remains it causes irritation and an aseptic fever develops with greater danger of the graft failing to unite.

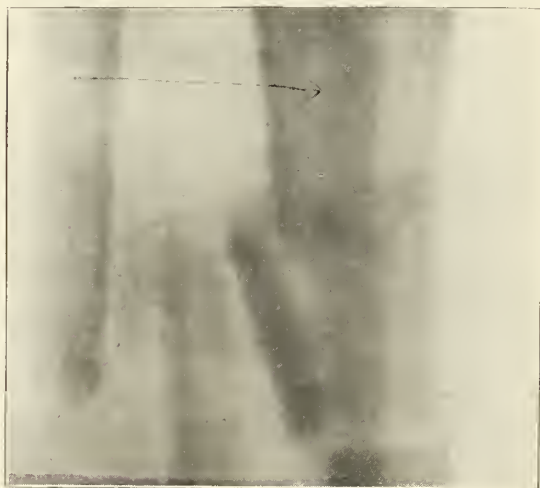
The accessibility and formation of the crest of the tibia makes it peculiarly adaptable to the fashioning of a transplant. This is the location from which most bone grafts should be procured. By the use of proper instruments a piece of the crest of the tibia of the desired length can be most readily cut. This is triangular in shape and for the larger bones should measure about $1\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$ inches on its three sides. No effort is made to denude it of periosteum. It is detached with chisel after either end has been cut through with a saw to the desired depth. The newly formed granulations and medullary cavity of the fractured bones are bored out with the bone reamers. The transplant is at once, with as little handling as possible, driven into the lower fragment far enough to allow it to be inserted into the prepared cavity in the upper fragment. The bones are then firmly brought together and the transplant held in place by a single nail or phosphor-bronze wire. This is not always necessary if the graft fits snugly the reamed-out medullary space. The wound is closed without drainage and a well-fitting plaster cast applied. Union occurs in from five to seven weeks.

My experience in supplying bone defects is limited so far by two cases of excision of one-half of the inferior maxilla. In one of these small chips or bone plates without periosteum after the method of MacCwen were used. They were embedded in and attached to the periosteum and soft parts after healing of the wound following excision of the entire left half of the inferior maxilla for necrosis. Three fragments were used. After three months they had completely united and a firm ridge of bone had developed from the symphysis to the angle of the jaw. No attempt was made to supply the defect left from the removal of the ascending ramus and the articulating head of the mandible. So successful was this case that I next attempted to graft a portion of the tibia to supply the defect after removal of an osteosarcoma located about the middle of the left transverse ramus of the lower jaw. This was done immediately after the excision of the tumor and failed because of infection from the mouth cavity. This was some years ago and I did not, at that time, realize that I had attempted the impossible. The transplant in this region must be placed without opening

the oral cavity. I now have two cases with similar defects and I hope to make a more favorable report on them in the near future.

Reconstructive rather than excise surgery is the highest aim of surgical art. Transplantation of bone is one of the great steps in this modern surgical progress and we can see in it infinite possibilities for good.

CASE 1.—Patient, A. S., a Russian laborer 40 years old, entered the General Hospital, Nov. 27, 1912, with comminuted fracture of both bones of the left leg. The x-ray demonstrated displacement of a large fragment of bone in the tibial fracture with shortening of both bones. Fracture of both bones was in upper one-third. The limb was immobilized temporarily in blanket splint for three days and then in light plaster cast. Limb was left immobilized for six weeks with occasional massage and passive movement. At the end of this time the deformity due to the misplacement was easily palpable and limb was movable at point of fracture. A second x-ray at this time exhibited very little callus formation and no bony union. Open operation, Jan.



Case 1.—X-ray photograph showing transplantation of bone in case of comminuted ununited fracture of tibia.

14, 1913. Ends of tibial fracture were exposed and sawed so that they could be placed in apposition with no deformity. A piece of bone five and one-half inches long was removed from opposite tibia and introduced into medulla of ends of fractured tibia and approximated. Wound repaired and limb placed in plaster cast immediately. For a week after the operation patient's temperature varied from 100 to 100.4, pulse averaging 100. The sound limb was redressed at end of six days. Slight infection of surface wound was found. After this redressing temperature and pulse have been normal. Silkworm gut sutures. No evidence of infection on grafted side. At the end of four weeks patient was up and about on crutches. Recovery so far uneventful. Feb. 19, 1913, walks about ward on his cast without pain. Bony union.

CASE 2.—Patient, L. J., a German laborer, 47 years old, suffered a comminuted fracture of the left radius and a comminuted fracture of the left tibia and fibula, as a result of a railway accident Dec. 10, 1912. At the time of his admission to the Swedish Hospital it was noted that his body was covered with syphilitic rupia. This disappeared under mercury and large doses of potassium iodid in two weeks. An anesthetic was given and his fractures reduced. A splint was applied to the forearm and a well-fitting plaster-cast

to the leg. The arm united nicely. The leg, however, failed to show any evidence of bony union after eight weeks and an operation was decided upon. This was performed Jan. 28, 1913, at the City Hospital, under ether anesthesia. A longitudinal incision seven inches long was made, just to the inner side of the crest of the tibia. The ends of the bone, while in good apposition, were not united but were covered with granulation tissue. A loose fragment, about one inch long, was detached from the posterior portion of the upper fragment. Owing to the great irregularity of the broken bone, the ends were cut off with a chain saw and the granulation tissue in the medullary cavity was reamed out for a distance of about two inches. The crest of the opposite tibia was now laid bare and a piece of bone about five inches long was removed. This was detached with the chisel after the crest had been cut to the required depth at either end with the saw. No attempt was made to remove the periosteum from the transplant. This was now immediately driven into the reamed out end of the lower fragment. Traction was made upon the leg and this large bone

re-established from the median line to the angle of the jaw. Three months later this had increased to the size of a large lead pencil.

Note to Case 3.—Some years ago I reported this case as an example of the remarkable regeneration of bone from the periosteum. At that time I concluded my transplants had been absorbed as the new periosteal bone was developed. I am now, however, convinced after a study of Macewen's recent classic that the new bone in this case was developed from the shell or fragments remaining attached to the periosteum and from the bone chips transplanted from the tibia.

CASE 4.—Patient, Mrs. G., 28 years old. Dec. 14, 1910, resection of lower jaw; giant-celled sarcoma and transplantation of piece of tibial crest in defect. A three-inch piece was cut from tibia and held in place by wiring it to the ramus at the angle. The mouth cavity was necessarily opened at the time. An effort was made, however, to embed the transplant in the soft parts and to exclude the mouth cavity from the wound by sutures. This attempt failed. Infection resulted and the transplant later had to be removed. It, however, held the incised portion of the jaw in such good position during the healing process that but little deformity resulted. An effort later will be made in this case to do a transplant under perfect asepsis.

Bryant Bldg.

THE STATE HOSPITAL SITUATION IN MISSOURI *

M. A. BLISS, M.D.

ST. LOUIS

In the years gone by since Pinel freed the insane from the bondage of chains there has been a growing consciousness in the public mind of its duty toward the mentally sick poor. Communities have taken various viewpoints according to the period and to the state of culture attained.

Many motives determine the tendencies displayed. Instincts of self-protection, pride, pity and profit may all be blended to secure for the helpless and afflicted a place where they may be housed, warmed, fed and treated. In recent years there has been applied to the intricate problems connected with state aid of the sick poor, scientific examination and study; and necessarily so, for the task of provision for them grows apace and the economic aspects come to even outweigh the purely humanitarian features.

As in every other department of life's activities, those persons who most singly devote themselves to their preparation for such work are most successful in it. For some reason the people of Missouri seem to think that experience and training are disqualifying attributes, so as soon as any of its medical and nursing



CASE 2.—X-ray photograph showing transplantation of bone in case of ununited fracture of tibia.

peg was inserted into the upper fragment and the bones brought into accurate apposition. A small nail was driven into the upper end in order to keep the transplant in place. The muscles and fascia were brought together with a few catgut sutures and the wound closed without drainage. The leg was put up in a plaster cast. Primary union resulted. Six weeks later firm bony union had resulted.

CASE 3.—Patient, L. T., Feb. 7, 1904, 28 years old, had the left ramus of his lower jaw broken during the extraction of a tooth. Violent sepsis resulted, but after two operations, at which the whole inferior maxilla from the median line to the left glenoid cavity of the superior maxilla was removed, the wound finally healed. Nov. 12, 1904, three pieces of bone without periosteum were detached from the opposite tibia and embedded into the space between the end of the right portion of the inferior maxilla at the chin and the left angle of the lower jaw, at which point a small fragment, or shell, of bone could be felt. These bone grafts were placed in contact end to end with this bone fragment, great care being exercised not to open the mouth cavity. The connective tissue and what remained of the periosteum was drawn over to completely cover them in. Primary union resulted. Four months afterward firm bony union had been

*Read before the St. Louis Medical Society, April 12, 1913.

corps in the state hospital service acquire any of either qualification they are requested to make way for others who do not possess these very objectionable characteristics.

So it comes about that with four hospitals for the insane, one for the feeble-minded and epileptic and one for the tuberculous, we have six disconnected and uncorrelated plants constantly used as training schools for those who are never to be given an opportunity to apply the knowledge their limited period in the service enables them to acquire.

When a new administration is installed at Jefferson City, does the governor look about over the state to discover the men whose work in the service has shown their especial fitness? He appoints the boards for each hospital, being careful in each instance to make political expediency a foremost consideration, and then he very magnanimously saves the boards much perplexity by telling them just whom they shall select as superintendent and assistants, and the same considerations again are foremost.

Let us not give the impression that this method has resulted in any very disastrous state of affairs. It has not. But it is still true that many very lamentable occurrences would have been foreseen and prevented by men of experience.

At this moment our entire hospital service force is in a state not conducive to singleness of scientific purpose, and all because the fortunes of politics have brought about a change of party in power. What have those differences of opinion which cause men to divide into political parties to do with the special problems connected with the care of the sick?

As we stand now in Missouri we are paying for the eustodial care of a vast number of people, a number constantly increasing, of whom we know little as to the causes of their illness or deficiency, nor do we know how we may best treat them to restore their efficiency, nor do we best employ them for their own welfare and for the incidental opportunity we give them for partial self-support.

What effort are we making to learn methods of prevention of insanity, epilepsy and feeble-mindedness? Does it not appeal to all of us that a thorough study by competent men given adequate time, opportunity and compensation for task, would result in the same way as in New York or Connecticut?

During the session of the legislature just adjourned, a bill supported by the administration was introduced creating the office of state alienist. The design was to employ a skilled man to visit the various hospitals for the insane and the colony at Marshall, to give instruction in psychiatry and neurology and to aid in classifying the patients in making diagnoses and determining questions of parole and discharge.

We opposed the bill for the reason that it did not provide for the retention in the service of those who were to be trained and instructed by this high-salaried official. Of what possible use to the state service would the alienist be if none of his pupils could hope to retain his position should the administration change? It takes time to learn psychiatry and hospital management and no alienist, however skilled, can take a group of untrained men and make them efficient in less time than the longest period they are usually allowed to remain. Just as they are becoming genuinely useful, out they go and a fresh group is taken on.

The bill failed to pass, but we are told it was for reasons of economy and not because of the essential features.

A bipartisan board bill was introduced by Representative Hay and had it not been for some trading of votes incidental to the fate of some other bills would probably have passed. The favorable sentiment expressed toward this bill augurs well for future attempts in legislation leading to complete non-partisan management of state hospitals.

We have not thus far felt that there was sufficient positive sentiment in favor of a merit system to make us hope that an adequate law could be passed. But there has in the last three years been a substantial growth of such conviction.

We have learned thus far of only two appointments. But we may assure ourselves that all of them will be along the usual lines. We must be understood as having for the doctors who fill these places the respect and confidence their probity and professional attainments entitle them to. We continue to affirm, however, that they enter the hospitals inexperienced, must learn there the elements of psychiatry and institutional management and are fated to be replaced just at a time when they are really becoming useful.

The legislature increased by a very moderate sum the appropriation for the State Board of Charities. This body has always been severely hampered by lack of authority and lack of means, but has stood as the only agency in the state giving general attention to all the hospitals and institutions. We have nothing to say save of praise for the generous work they have done in the face of great discouragement.

But, were I a member of the board, I would feel that either it should be given adequate means and authority to meet conditions in the service or it should be replaced by such a body as would have substantial and proper support.

We have undertaken to learn something of conditions by visiting the hospitals. In February Dr. Baumgarten, Dr. Johns and I visited the colony at Marshall. It was well situated on a 278-acre tract of high rolling land, well drained, reasonably fertile and capable of excellent development. The buildings, while not at-

tractive in design or materials, are fairly adequate, consisting of several units two and a half stories high, connected at the basement and first-floor level by covered corridors which are inclosed by windows in winter and screens in summer. There is a central heating plant working by direct and indirect radiation and a boiler plant for the production of steam to run the dynamos for lighting and the pumps which draw the water-supply from deep wells.

There were 471 patients housed there at the time of our visit. It immediately struck our attention that the residual material was in great excess, perhaps half or more of the patients complete terminals whose only need is custodial care.

This group, many of them 40 years old or more, should, in our judgment, be separately provided for; they are occupying space intended, we think, for the feeble-minded capable at least of a little training, and for epileptics of whom many having a considerable measure of intelligence but in need of institutional care.

Until a proper custodial hospital can be provided we think cases which reach a terminal stage, i. e., complete dementia, should be provided for in halls adapted for their care in the hospitals of their respective districts. We learned there was a waiting list varying from 300 to 400. It is reasonable to suppose that a very considerable number of these are properly eligible for admission. It seems very unfortunate that a discriminating classification is not made so that the objects for which the Marshall colony was established might be possible of attainment. Here in St. Louis we have no provision for mental defectives or epileptics who become a public charge, except our city sanitarium and it is on such a small tract of land as to make any extensive outdoor plan not feasible.

Marshall is already much overcrowded. Neither epilepsy nor feeble-mindedness is curable nor in themselves fatal. So vacancies available to us will be very few unless the sorting process suggested is applied. There are many criticisms which might justly be made of the methods used at Marshall, but under present conditions it would seem impossible to correct them, so we will not discuss them now, except to say that a stricter division between the sexes should be maintained, more manual work should be provided and a dietitian should devise the diet for the epileptics.

We have just returned from a visit to Nevada where a perfectly typical example of our present methods has in the past month occurred. An efficient corps of officers with four years of experience and with many betterments well established and with well-developed plans for further improvement has been displaced by a corps of inexperienced men—none, with one exception, having had any knowledge of psychiatry or institutional work before appointment.

The outgoing superintendent had established a training school for nurses and a lecture course for attendants. He had developed an industrial department with opportunity for manual work and training for both men and women, brush and broom making, basket weaving, metal work, shoe cobbling, etc. He was, while in the hospital, eager to learn of any methods for the greater welfare of his patients, visiting many well-organized hospitals in search of information.

But when the politics of Missouri's governor changed he was first to be displaced. All the knowledge he has gained in the service is mercilessly sacrificed because the governor is bound by custom to appoint a successor of his own party, not for the welfare of the hospital or its patients, but because custom in Missouri says, "to the victors belong the offices." Let us change the custom.

Humboldt Bldg.

DISCUSSION

Dr. Frank P. Norbury: In the social evolution of the race the study of the mind has ever attracted the attention of intelligent men and women, both as regards the composition of mind, replete with instincts and impulses essentially individual in their effects, and the social reactions which necessarily follow when the individual comes in contact with his fellows. The evolution of the individual as an individual and the evolution of the individual as a citizen represents the weave and woof of unflagging influences which socialize effectively the innate tendencies and reactions, which ever must contend with the exigencies of physical and human nature.

The family, the neighborhood, the community, the church, the industrial group, the provincial manners and customs, and last but not least, the state, are the accumulative agencies which directly or indirectly serve to mould life as shown in character and conduct. It has been said that we, each of us, really has no individualistic life; that from the outset of life's experiences we are the subjects of one or more, or all in fact, of these great reactionary influences. From such influences are moulded citizens each bearing the provincial stamp in spirit, temper, ideals and attainments of the locality in which he lives or from which he came. You have a saying, "I am from Missouri, show me," which on its face shows the Missouri citizen in his activities, as a contributor to social welfare has a definite, almost ritualistic stamp of the tribe, which requires that to have one introduced to the privileges and obligations of Missouri citizenship one must show logical values to any proposition before it will be accepted. It is a good spirit, helpful and in its traditional values ought to prevent men from stumbling blindly into paths "which come they know not whence and lead they know not whither." From the standpoint of social and racial psychology this fundamental characteristic ought to render effective results, in that no social imitation would be undertaken without thorough investigation.

The significance of this in the social situation of state care of the insane in Missouri is conspicuously in evidence in the fact that bounded as you are on three sides by states which have accepted a pattern of standardization of service in state charities, Missouri has not been influenced by social imitation. In other words, you are waiting to be shown before you will accept the pattern, the standard of centralized management, which has excited the imagination and stirred the impulses of your neighbors and caused this

revolution of organized effort to improve efficiency, economy and service in management. We all recognize in any particular instance of emulation that there is an unconscious attempt to scale heights equal to or even greater than those scaled by others.

This fundamental social psychological fact shows itself in legislation enacted by the states, especially along social lines. Just recently I was one of a committee of fifty to draft a bill for the creation of an epileptic colony in Illinois. The acts creating such institutions in other states were carefully scrutinized and the best features of each were sifted as patterns for us; then we tried to create new features, essentially practical, essentially constructive, that give greater service and more beneficial results.

Psychological independence justifies such an advance in constructive thought; it is in accordance with scientific intellectual, practical and utilitarian thought of to-day. Individual variation must be recognized both by the specialist in social psychology and we of the common herd as a quality of essential importance in social welfare. Missouri has the opportunity to profit by the mistakes of her neighbors and a more lasting opportunity to create and herald the adoption of a scheme of organization, full of values accepted by precedent and practice as trustworthy even though divergent in constructive thought. While emulating others you will advance to newer heights by individualized practical efforts and impulses because of the sifting of traditional values to the extent that only the best remains. These values through the refining process of accumulated experience of your neighbors, will leave a reflective, critical residue of experienced guides in creating an intellectual level above the mediocre. This in itself will determine your responsibility in providing the best ways and means of conducting your state charities.

The management of state institutions under a centralized board has passed beyond the vagaries of fashion; it has escaped the glare of imitative tendencies such as is found in the spirit of the fad, and has now reached the professional group of pace-makers, who herald "the age" of efficiency in management.

If our institutions were grouped under public utilities, manufactories or great corporation management, the centralized board would be recognized as the ideal, because financial economy and dividends, service and efficiency would be the watchwords, the underlying motives, the imitative tendencies, which determined such centralized power. The great drawback to such centralization (the real reason) is within the range of social psychological analysis. It is the group solidarity,—the political group solidarity,—which, as we know, entertains convictions and is subject to practices which affect the ideals of the body or group which they represent, whether it be a family, a neighborhood, a community, or a great commonwealth.

Group social solidarity tends to discourage reflective criticism and to divide and dissipate the sense of real personal responsibility. As a result, old customs, old ways and means of doing things, will prevail until accumulated thought, convictions and beliefs outside of the group, generally fostered, developed and enforced by another group or groups, dominate and modify the convictions which have prevailed in the first group.

It is, therefore, fundamentally a question of education or re-education which must bring to bear upon the powers that be the newer ideals, which must modify the practices of the old order of things. It is a fact which history sustains that in the progress in the care of the insane from the time of Pinel to the present day, forces marshalled to institute reforms or advanced methods came from without the social group which had immediately in hand the management of institutions. It was so with the initiative of Pinel—the physician—it was so with the initiative of Tuke, it was so in New York, in Illinois, Iowa, Missouri and other states.

The initiative in the vicious laws of commitment in Illinois was created outside of the group which should have had intelligent conception of the great problems of the insane. The medical profession has stood foremost among the social groups which have made history in the care and management of state institutions. Step by step this profession has made progress in the science of psychiatry, and step by step it has made its influence felt in the recognition of the fact that these institutions are hospitals and as such subject to the same practical requirements as hospitals in general.

It is purely a practical necessity which has made the state the monopolistic power in the care of the insane; just as the presence of epidemics has made the city or county or nation the custodian of public health. Scientific medicine has in the past quarter of a century evolved from empirical medical practices to a more exact recognition of the causes and prevention of disease. Scientific psychiatry has during the same period become a solid branch of medicine on equal footing with other specialties of medicine. It has included in its development in state institutions the equally interesting and instructive features of scientific management of hospitals and all that goes with organization which meets all the demands of modern practice of psychiatry in institutions.

The burdens of a superintendent's responsibility are now those of a managing officer—these burdens are more than questions involving individual clinical knowledge—they embrace all factors entering into the successful management of a hospital.

Huxley wisely said that all problems eventually reduce themselves to a financial basis. This is true in the state care of the insane and consequently the financial consideration primarily is foremost in that money is necessary to create, develop and maintain hospital service. The great financial demand on the state for the maintenance of the state charitable institutions is a growing one; in Illinois it represents 36 per cent. of the tax levy; and one which grows in every commonwealth with the growth or awakening of social consciousness.

The spirit which prompts the care offered to these unfortunate wards by the state, viz., the insane, feeble-minded, epileptic, etc., is one of responsible philanthropy and of the full recognition of the spirit of modern social service. It is the duty of society to protect, care for and treat these social derelicts—subjects of both social and biological order of events which have conspired to make them heaps of human personalities adrift, seeking a harbor of refuge. Lugaro says the state has a duty to maintain on a "high plane the bonds of social unity of interests against misfortune and of respecting every feeling of sympathy which, if only computed in dollars and cents, may appear to some as sheer extravagance, but which constitutes, nevertheless, an integral part of that treasure of altruistic feelings without which no society could continue and progress."

"A civil society which respects the incurable patient, though useless and costly, respects itself, and willingly takes upon itself that moral inheritance which is the result of generations of sufferings, hardships, and cannot be expressed in arithmetical terms."

"The Spartan laws, merciless to the weak, if they can still form the ideal of some parsimonious and uncultured administrators, are repellant not only to those who are looking into the future, but also of the temperate opinion of society."

The state, therefore, is under obligations not only to continue to serve those who become its wards, but to seek further to perfect the organization of this service that it may render honest returns for the dollars expended, that it may extend and develop all features which preserve and conserve their best interests in so doing. The state in recognizing this duty must accept without qualification the responsibility of perfecting

the organization of management of state institutions. Modern experience has shown that in order to correlate all the functions of such a service, to place responsibility, to insure economy and efficiency in management, that the central board of control, or of administration, meets these demands. The power delegated to such a board is in keeping with the accumulated knowledge and experience of special social workers in state charities, who are recognized as authorities in such matters. Specialism in state charities, like specialism in medicine, science, mercantile life, manufacturing, etc., has come to stay and it is to these specialists the state must look for advice and help in solving its great problems in the care of its wards.

The central board represents the best thought in state care and as the "proof of the pudding is the eating of it," I am going to briefly review what the Board of Administration has done for Illinois, in order to show you that what to many seemed an experiment and promised little, has proved not only the wisdom of its friends in their beliefs as to the economical and efficiency features, but has been the means of awakening social consciousness to the degree that our institutions have the confidence of the people, the Board has the confidence of the people and the Legislative Assembly, and that the standards of service have been raised fully 100 per cent, during the brief period of the three years of its existence.

We all recognize that there is much to be done to bring up the service to standards which we have created. We know that years will elapse before all the very varied problems which now confront us will be solved, but that progress has been made is shown in the service, the financial results, the improved supervision of clinical service and the acceptance by the people of the great scheme as a whole.

The Board of Administration was created by an Act of the General Assembly in 1909 and revised in 1912. This Board has control of all the state charitable institutions, eighteen in number. Of these, eight are hospitals for the insane, the rest include the schools for the deaf and the blind and the feeble-minded; training schools for boys and girls; the Soldiers' and Sailors' Home, the Soldiers' Widows' Home and the Soldiers' Orphans' Home; and the State Charitable Eye and Ear Infirmary and the Industrial Home for the Blind.

The Board of Administration is composed of five members, appointed for a period of six years each. The law states that no more than three such members shall belong to or be affiliated with the same political party. The law also states that one member of the Board shall be qualified by experience to advise regarding the care and treatment of the insane, feeble-minded and epileptic. The law also states the duties of one member as that of fiscal supervisor, and also designates that one shall serve as president and one as secretary. The various duties of administration all come under the jurisdiction of the Board as a whole, but at the same time each member has designated duties for which he is responsible.

The Act creating the Board includes within it the Charities Commission, the Department of Visitation of Children, the Psychopathic Institute, and supervision over private institutions, jails, etc. The law also states the manner and form of regulating state care of the insane, and has removed all the insane from the county houses so that at present, in Illinois, complete state care prevails. On the first of January, 1913, this full state care went into effect. There is a reimbursing feature, which permits of the reimbursement to the state for the care of such patients whose estates, relatives or friends are capable of paying for such care. The purchase of supplies and full regulation of the service of the state hospitals come within the jurisdiction of this Board. All the employees, excepting the superintendents, are under civil service. All the pres-

ent medical staff, with the exception of three, are civil service appointees. All the assistant superintendents are such by promotion through the various grades. Medical men enter as interns or assistant physicians and are then promoted, from time to time, by examination, according as vacancies exist and their names appear upon the eligible list.

The nursing service is on the same footing. In fact, the nursing service in Illinois is a step in advance of that in any other state. The senior pupil nurses of our training schools take the nurses examination as conducted by the Civil Service Commission, and those passing this examination become graduate nurses in the civil service sense. The course in our training schools has been outlined and is fully up to date with that of any other training school, except, perhaps, the training school of a general hospital where a more comprehensive course is conducted. Our attendants are compelled to take an attendants' course of three months, and we conduct three such courses a year.

We feel that the service is upon a stable footing and while there is much to do to develop it to the degree that we would like to see it, yet for efficiency and economy of management it is comparable to that of any other state with the exception, perhaps, of New York.

COMPARATIVE STATEMENT OF EXPENSES

Gross saving based on bills incurred in ordinary expenses:

1910 over 1909.....	\$244,974.63
1911 over 1909.....	267,616.69
1912 over 1909.....	97,888.75

Gross saving three years.....\$610,480.07

Less expenses of Board of Administration, and other set-offs for three years\$437,803.36

Net saving three years.....\$172,676.71

In addition to the above saving the average number of inmates increased during the three years 566.

BLOOD-PRESSURE *

LEWIS CARTHRAE, JR.,
CORDER, MO.

It was not long after the discovery of the circulation of the blood by Harvey that hypertension of the blood-vessels was recognized in a vague way by physicians and relief was sought by bleeding. This method seemed to have been sufficient to the medical mind until early in the last century when venesection fell into disuse. From that time interest on blood-pressure became more pronounced and a number of scientific men undertook the invention of different kinds of instruments for testing the pulse also the blood-pressure in the arteries. Many instruments of different kinds were placed on the market; some had merit, others did not. It is safe to say that about ten years ago came the true realization of the great importance of taking blood-pressure readings in disease. Since that time interest in this important subject has been increasing daily and at the present time we are amply able to determine existing blood-pressure by the use of the sphygmomanometer. I think it just as important

* Read before the Fourteenth District Medical Society, Oct. 17, 1912.

as the stethoscope or the clinical thermometer to the physician. I think that every qualified physician should have this instrument in his possession.

Blood-pressure always depends on four factors, namely, first, force of the heart beat; second, peripheral resistance; third, elasticity of the arterial walls; fourth, the amount of blood in circulation.

Blood-pressure is not always uniform; it varies somewhat in normal cases and in pathological cases the variance is sometimes great, but by the use of blood-pressure readings the exact variance can be ascertained and the effects of treatment can be shown by the use of this instrument. Increased blood-pressure if sustained is a pathological premonitory symptom and a forerunner of changes in cardiovascular renal disease. Blood-pressure varies in wide limits, according to position, nerve tension, digestion, and differs in the same individual and in the different vessels and at different hours. Blood-pressure readings are always higher when standing than sitting, and higher sitting than reclining, the difference being about 4 to 8 mm. It is also necessary for an accurate reading of the blood-pressure for the patient's mind to be at ease, for functional disturbances of any kind will increase the maximal pressure.

In taking blood-pressure readings in the same individual for a protracted time it is proper to chart the readings, trying to take the readings as near as possible at the same time each day and under conditions as near alike as possible. The value of diagnosis and prognosis of a certain condition will call for blood-pressure readings, not taken once but taken daily as a routine work. In this way only are we able to foretell coming conditions and guard against them; an indication of disease by proper treatment may prevent the development of a pathological condition. Increased blood-pressure if not sustained but intermittent is not disease but it is a positive indication that the sequel will be disease if the condition is not taken in hand and corrected. The physician therefore is warned of impending danger and is given a chance for prophylactic and curative treatment that he would not have had had he not used the sphygmomanometer.

An important thing to remember is that this instrument reveals symptoms of cardiac or kidney lesion before a murmur can be heard or the trace of albumin can be found. It will show toxic blood conditions that will lead to cardiac or kidney disease long before any evidence of anything wrong would be discovered. The importance of variations in blood-pressure is recognized by the life insurance companies. Almost all the insurance companies now require an examination of blood-pressure for policies of \$5,000 or over for any person over the age of 40 years. Others require blood-pressure readings of all applicants irrespective of the size of the policy

or the age of the applicant. They also require the use of a cuff having a surface presentation of 12 centimeters. The examination is of the utmost importance, for a person with a pathological blood-pressure would certainly make a very poor risk for any insurance company. To a great extent the insurance companies have only asked for the maximal, i. e., systolic pressure, but I think as they go more carefully into the matter they will find by only determining the systolic pressure they are in great danger of accepting risks that they should not, and it will only be a question of time until they will require both maximal and minimal, as well as the pulse pressure.

Diseases of the blood-vessels, heart and kidneys go hand in hand, and serious disease of one is not found without involvement of the others. Bishop makes this observation, that increased arterial tension in diseases of the heart, arteries and kidneys is directly responsible for a number of symptoms, chief among which are nose-bleed, increased urination in a beginning Bright's disease, headache and attacks of dizziness.

The use of the sphygmomanometer has thrown fresh light on the subject of heart failure. With a competent heart there exists a blood-pressure that is gradient from arteries to capillaries; when the heart becomes incompetent the gradient becomes less steep, for the venous and capillary pressure rise to relatively higher levels until in fact the capillary pressure may relieve itself by exudation. An early sign of failing competency is not only an irregularity of the ventricular rhythm but a marked irregularity of the systolic pressure of the individual pulsations. Continued high blood-pressure will sooner or later produce cardiac insufficiency. Elliot states that if physical signs of cardiac weakness are not in evidence the heart may still be insufficient, as will be readily shown by taking the blood-pressure reading after slight exercise. The comparison of the daily variation of the blood-pressure and pulse will give valuable information concerning the patient and the course of the disease. Contraction of the arteries is associated with a slow pulse and a high blood-pressure while a dilatation of the arteries is associated with a rapid pulse and a low blood-pressure. Diseases of the arteries will sooner or later develop under increased arterial tension. Careful comparative results of both arms will often show a difference of 5 to 15 mm. between the two sides in arteriosclerosis. Such a difference is an important diagnostic sign. The difference must be constant and observed a number of times. The sign is also of value in differentiating a primary arteriosclerosis from a sclerosis secondary to nephritis, as in the latter case the variation between the two sides does not occur. When arteriosclerosis does cause a rise in blood-pressure the rise is chiefly in the systolic pressure. It is generally conceded that there is a stage in the production of arterio-

sclerosis in which the pressure is raised before there is a change in the arteries. The blood-pressure readings will aid in the diagnosis of this stage long before any other method will give any assistance. Increased blood-pressure may be the earliest objective sign.

Arteriosclerosis is essentially a disease of old age. The old saying that a man is as old as his arteries is a relative term, for a man of three score and ten years could have arteries that we would expect to find in a man in the third and fourth decade of life; also we might find in a man of 30 or 40 years of age what we would expect to find in a man of 70 years. We would naturally expect to find manifestations of arteriosclerosis in individuals who have passed the age of 70 years. But it is when we find the disease in the man young in years that we are surprised and put to a difficult task in arriving at a diagnosis. In making a diagnosis of arteriosclerosis, especially in the young, syphilis stands out as a predominant factor in its causation. Then next I would say is the manner of living, the high tension necessary to the carrying on of large business enterprises, social environment, alcohol and narcotic stimulants play a part in the production of arteriosclerosis. The various infectious fevers, such as typhoid fever or septic processes that have retained a toxin in the blood for some time; in fact any interference with the normal circulation continued for some time will cause a hypertension, thereby producing a sclerosed condition of the arteries. That an early diagnosis of arteriosclerosis, especially in the young, is necessary is hardly worth while to emphasize. The blood-pressure in arteriosclerosis is usually increased and gives us one of the earliest aids in making a diagnosis. The blood-pressure of normal individuals is estimated at 120 to 130 mm. of mercury and when we find a blood-pressure exceeding 140 mm. for any considerable time we look for a pathological condition. I have reference to persons between the third and fourth decade of life.

High blood-pressure is always associated with the clinical history of nephritis. It furnishes so many symptoms of discomfort that it calls for treatment. High blood-pressure in chronic nephritis is due to the obstruction of the flow of the blood in the renal artery by the structural change in the kidney which causes increased blood-supply to go into the suprarenal gland through the collateral of the renal artery to that gland.

In consequence of the increased blood-supply there results an increased activity and consequently a rise in blood-pressure.

Chronic interstitial nephritis provides generally higher readings than are met with in most diseases. The readings will vary from 220 systolic to 140 diastolic up to 260 = 280 systolic, 160 diastolic.

Blood-pressure in uremia: The use of the sphygmomanometer in uremia is absolutely necessary. For in all chronic cases the blood-pressure is high and becomes more so as tension rises. Uremic crises can be foretold by a marked rise in blood-pressure. A quick fall of pressure in cases of contracted kidneys signifies complete failure of cardiac action.

Blood-pressure in pneumonia: Uniform results of blood-pressure in pneumonia have been hard to obtain, but the following conditions seem to prevail in the majority of cases: In the first day or two of the disease the blood-pressure is a little high, which is followed on the third or fourth day by a rapid falling pressure which is known in severe cases to have dropped to 80 or 90 mm. In fatal cases a rapid drop has been noted with dilatation of the heart. It is fairly well established that up to the time of crises both in broncho and lobar pneumonia blood-pressure will run about 100 to 105 millimeters but after the crises in both pneumonias and as convalescence begins the pressure will rapidly come back to normal. In mild cases the blood-pressure changes but little. As stated the blood-pressure readings have not been uniform. We must take into consideration the causes for deviation, namely, the difference in individual reaction to toxemia, amount of lung tissue involved, the motor restlessness of some patients, the urgent dyspnea of others. So there is little wonder at the discordant results. A pressure that is distinctly below normal is generally a bad sign and often points to a fatal termination. A valuable rule to follow in pneumonia is known as the Gibson rule, namely, when the arterial pressure expressed in millimeters of mercury does not fall below the pulse-rate expressed in beats per minute, the fact may be taken that your patient stands a splendid chance for recovery, while the converse is equally true, that is, when the pulse-rate per minute is higher than the pressure of millimeters of mercury. The equilibrium of the circulation is seriously disturbed.

The use of the sphygmomanometer in pneumonia both as a means of diagnosis and prognosis is strongly indicated.

Blood-pressure in tuberculosis: Subnormal blood-pressure is universally found in advanced cases of pulmonary tuberculosis, in which condition emaciation may play a part in the causation. Low blood-pressure is found in almost all cases of moderately advanced tuberculosis, or in early cases in which the toxemia is marked, except when arteriosclerosis, chronic nephritis or diabetes complicates the tuberculosis and brings about a normal pressure or a hypertension. Low blood-pressure has been found by so many observers in early doubtful or suspected cases with or even before the physical signs of the disease in the lungs has been detected, and it is considered almost as important as the pulmonary signs themselves. Low blood-pressure when

found persistently in individuals or families living under certain unhygienic surroundings should put us on our guard at least against a predisposition to tuberculosis. Most unhygienic conditions, such as overwork and insufficient air, are of themselves causes of a diminished resistance. Low blood-pressure when it is present in tuberculosis increases with an extension of the process. Recovery from low blood-pressure accompanies arrest or improvement. Return to normal pressure is commonly found in those who are cured. Continuation of low pressure seems never to accompany improvement.

Prognosis can as safely be based on the alteration of the blood-pressure as changes in the pulse or temperature.

Blood-pressure in obstetrics: By the use of the sphygmomanometer in pregnancy, toxemia of the kidneys can be determined fully six weeks before the presence of albumin is noticed in the urine, by rise in the blood-pressure; this is a positive fact and has been proven beyond a shadow of doubt by the leading obstetricians and maternity hospitals throughout the country. The use of this instrument in this branch cannot be too strongly emphasized as the physician can at all times tell the exact condition of his patient and also the condition of the kidneys and by the blood-pressure readings can tell whether he is overcoming a certain condition or not. In pregnancy there should be no perceptible rise in blood-pressure as that condition is a natural one and is thoroughly compensated for by Nature and any rise in blood-pressure should be regarded as highly suspicious and be thoroughly investigated. It seems to be the consensus of opinion among the leading obstetricians that it is highly dangerous to carry a patient through pregnancy with a pressure running as high as 145 mm., for eclampsia is almost inevitable with a pressure running that high. In normal pregnancy there should be no perceptible rise in pressure except during the expulsive pains; the pressure rises in jumps and falls until the next pain when it will rise again and so on until delivery. The pressure will remain a trifle high for a few days and will then become normal. In my opinion this instrument cannot be too strongly urged in this condition as it is perfectly obvious that by its use the dangers of eclampsia are minimized.

While the clinical use of the sphygmomanometer is well established its use in general surgery is in no way as general as it should be when its advantages are considered. It is perfectly obvious that the determination of the blood-pressure at frequent intervals is of the utmost importance to the anesthetist as well as the surgeon. It is the duty of the anesthetist to be aware of the condition of the patient at all times. When the blood-pressure readings are taken in these cases it is a usual procedure to take the pressure a number of times before giving the anesthetic to obtain in this way the normal

pressure, as the administration of the anesthetic will sometimes cause a rise in blood-pressure; after giving the anesthetic record the readings every four or five minutes during the operation. It is a good plan to continue the blood-pressure readings after the operation as it is equally important to know at all times the condition of your patient. By taking the blood-pressure readings during the operation we not only have the indications of shock when present but an indication of the exact time when shock has occurred and by giving treatment at the right time it is not only curative but prophylactic in many cases.

I believe that the reason blood-pressure observations have not come into more general use in surgery is the same that makes the physical examinations taken on the surgical side of a hospital very inadequate as compared with the medical, namely, that the attention is apt to be wholly focused on the condition demanding operative interference. It is highly probable that the internists are equally blind to certain conditions that would be important to the surgeon. Of course there are a few surgeons of broad general importance such as Dr. Harvey Cushing and several others, that have shown clearly the importance of blood-pressure observations in surgery. Also the obstetricians have been equally slow to utilize the inestimable value of blood-pressure readings in one of their most dreaded complications—eclampsia; and are only just beginning to employ them generally. This has only come about through studies made by internists on eclampsia. The great value in taking blood-pressure readings was demonstrated by Dr. Sophian during the epidemic of cerebrospinal meningitis at Dallas, Texas, last winter. His skilful management of the great number of cases and large reduction of the mortality will always stamp him as a great doctor. His method was to have an assistant take readings during the entire operation and he used this as an absolute guide, both as to the amount of fluid to be withdrawn and the amount of serum to be injected. He found that a total drop of 20 mm. of Hg in an adult having an average blood-pressure of 110 to 120 mm. was a safe indication to stop further injection of serum. He used the same method in withdrawing the fluid after lumbar puncture; occasionally the blood-pressure begins to drop very quickly as the removal of the fluid is begun. The blood-pressure then is a guide indicating how rapidly or slowly the fluid may be withdrawn.

Dr. Sophian's conclusions after using this method of administering serum are as follows: 1. The old method of administering serum is inaccurate and sometimes dangerous. 2. Blood-pressure change is a very accurate guide to the quantity of serum that can be safely injected, frequently indicating the quantity of cerebrospinal fluid that can be withdrawn. 3. Average dose of serum as controlled by blood-pressure is

smaller than by the old method. 4. Following the injection of serum controlled by blood-pressure, the after effects are usually much less serious.

Blood-pressure is too large a subject to go into a complete description of the treatment as it would be an imposition on your time. It is only my purpose to call your attention to its importance as a means of diagnosis. I am of the opinion that anyone giving this subject his time will be amply paid and will be in a position to aid his patients.

The man who will derive the best results from this comparative new development in medicine will be the one who will not limit himself solely to the use of drugs but who will in addition employ such means as diet, elimination, electricity, proper exercise, restriction of fluids, salt and so on.

The man who makes an occasional blood-pressure observation and gives a dose of medicine will accomplish but little without the addition of the above measures.

ABDOMINAL PAIN *

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The title of this paper would indicate that it is not to be a technical, theoretical or otherwise intricate article, but something which is practical and of vast interest to all medical men and will deal with symptoms, subjective and objective, observed at the bedside, where we have not the equipment at hand for laboratory diagnosis; therefore we purposely omit certain clinical data obtained microscopically, chemically, bacteriologically, etc., and which the busy practitioner has not the time at his command to become thoroughly proficient in.

It will be the object of this paper to cover briefly the more common abdominal affections associated with pain, usually with sudden onset and at times where a differential diagnosis is next to impossible.

Among the most frequent conditions causing acute abdominal pain are appendicitis, cholelithiasis, cholecystitis, gastric ulcer, duodenal ulcer, gastric carcinoma, acute pancreatitis, renal calculus, inflamed diverticula, perforations of viscera whether due to ulcer or foreign bodies from without, such as stab or bullet wounds, certain crises due to spinal-cord disease, obstructions of the bowel, intussusception, volvulus, strangulated hernia, ruptured tubal pregnancy or pyosalpinx, torsion of cyst pedicle, basal pneumonia, diaphragmatic pleurisy, caries of the spine, hydronephrosis with twisting of pedicle and a great many others which are not within the limits of the present paper.

Quoting from Butler the painful diseases of the stomach are ulcer and erosions in particular, less frequently cancer, and with varying incidence gastritis, gastropnoia, gastrectasia and various neuroses. The pain of gastralgia is excessive. The pain of a diseased stomach is felt in most cases primarily in the epigastrium, frequently behind the lower sternum and between the shoulders; often in the right or left hypochondrium or posterior lumbar region, and gastralgic attacks may involve almost the entire abdomen.

Intestines.—Impaction of the colon, according to its seat, may cause pain in the right or left hypochondrium, or in the anterior, lateral and posterior aspects of the thigh; pain in the groin may be due to mucous colic or inguinal hernia; while pain in the knee may be due to an obturator hernia.

The localized pain of appendicitis is well known and will be referred to later on in the course of the paper. Precordial pain, which is very common, may be due to flatus in the splenic flexure of the colon. A duodenal ulcer may or may not be painful until perforation occurs and even then pain may be absent. Flatulence, poisoning by metallic poisons, as well as acute enteritis and intestinal obstruction or perforation may initiate more or less general and severe abdominal pain.

Liver and Gall-Bladder.—The pain-producing diseases of the liver are the functional disorders and cirrhosis which may be moderately painful; inflammation, abscess and cancer, which may give rise to severe suffering; the most severe liver pain, however, originates from the gall-bladder and its associated ducts. A particularly tender point of much diagnostic importance on a line with the tip of the eighth or ninth rib on the right side below the costal border may indicate an inflamed, impacted or cancerous gall-bladder, or gall-stone lodged in the common duct.

Pancreas.—Acute inflammation is usually attended with epigastric pain, so also with cancer of the same viscus.

Renal colic usually due to stone is the typical painful disorder of the kidney. Pyelitis may cause pain not only in the lumbar region but also as the only algietic symptom above the pubes. Movable or floating kidney may be the source of much pain which becomes excessive if the ureter becomes twisted or kinked. Perirenal abscess may be responsible for pain and swelling in one posterior lumbar region or may be noted in one hypochondriac region, when the mass may be mistaken for gall-bladder disease if on the right side.

Splenic pain is felt in the left hypochondrium and left chest posteriorly and may be due to enlarged malarial or leucemic spleen, or to a perisplenitis from inflammation of the capsule.

Pain, sudden, acute, agonizing in the epigastrium accompanied by vomiting may be due to

* Read before the Fourteenth District Medical Society, Oct. 17, 1912.

any of the above mentioned conditions or diseases, such pain in a few hours localizing at the seat of trouble, as an instance, appendicitis beginning with pain in the stomach which in the course of a few hours radiates to the umbilicus thence to become localized at McBurney's point; again the pain may begin in the right iliac fossa and radiate to the bladder, genital organs and thigh imitating more or less the passage of a calculus, and *vice versa* the passage of stone on the right side may be mistaken for appendicitis. In connection with this the writer has in mind a case of a gentleman about 40 years of age who had always enjoyed good health, taken with sudden pain (abdominal) which in a short time became localized over the appendix radiating to the right loin and downward to the symphysis, the most tender point being exactly over the appendix; however, there was no mass determined at any time, neither was there blood in the urine; temperature was slightly elevated and the pulse was somewhat accelerated. Pain and rigidity remained several days when it gradually disappeared and a few days later while urinating the patient felt a stinging in the urethra and passed a stone the size of a bean.

Another condition which is frequently diagnosed appendicitis is ruptured ectopic pregnancy, but by careful observation it is generally possible within a few hours to diagnose the condition, as it is not always possible to do so at the onset; however the initial shock, collapse, fainting, blanched appearance, history of menstrual irregularity with spotting, gradual acceleration of pulse with decrease in volume and blood-pressure should put us on our guard, although menstrual irregularity is not always present, neither can you always get a truthful history, as witness the following case: Miss H., age 23, unmarried, was taken with pain in the lower abdomen while at church, but was able to walk to her home a half mile unassisted. Pain continued and I saw her about an hour after the onset. Pain was extreme over lower abdomen especially on right side over appendix, face was blanched, respiration thoracic type and lower abdomen rigid, pulse very small, rate 130; on inquiry she said menstruation was normal; diagnosis ruptured tubal pregnancy. Operation refused and another physician called who diagnosed appendicitis, removed her to hospital and operated next day, finding the abdomen full of blood and a ruptured right tube.

It is not always easy to differentiate an appendicitis from gall-bladder disease especially in retrocecal type of appendix where the appendix runs along the colon toward the liver or gall-bladder. An infection beginning in the distal end of such an appendix will readily be taken for a gall-bladder attack in the beginning; again appendicitis may be mistaken for any number of acute abdominal conditions. The following was diagnosed acute intestinal obstruction which

was correct but was secondary to appendicitis: patient was a married lady, multipara, menstruation normal, taken with acute pain in left iliac fossa, rigidity became marked over lower abdomen particularly over left rectus, distention marked, constipation absolute, vomiting continuous finally becoming bilious with tendency toward stercoraceous character, mass developed below umbilicus, condition bad, finally consented to operation which revealed a very long appendix crossing median line of abdomen with abscess at distal end and band constricting a loop of ilium; this patient had no pain on right side. Case 2, along the same lines, was sent into the hospital with a diagnosis of tuberculous peritonitis; female, age 23, emaciated, poor general health, present illness ten days' standing; pain general over abdomen, very much distention over entire belly; however, thought we could map out a large mass occupying lower abdomen nearly to the umbilicus. Vaginal examination found bulging of culdesac, temperature from 100 to 102, no regularity, pulse accelerated, bowels constipated. Diagnosis pelvic abscess. Upon opening culdesac there issued forth a quart or more of foul-smelling pus evidently a colon bacillus infection, which made us suspicion an appendiceal origin, therefore advised secondary operation after the abscess had closed. Patient, however, felt so well she left hospital but returned at the end of a month with an acute attack of pain on the left side extending up to the short ribs; pain, however, on pressure was greatest in the left iliac fossa; laparotomy revealed a long appendix crossing median line with two bands extending from its tip to the sigmoid and about an inch from the distal end was a band-like constriction, evidently the site of a previous perforation.

A case of carcinoma of the cecum in which a resection of the cecum and ascending colon had been done had been operated a month previously following a diagnosis of appendicitis.

Cases of acute abdominal pain located and remaining in the upper zone are frequently due to gall-bladder disease and are not always accompanied or followed by jaundice; the pain in gall-bladder disease is generally located to the right of the median line at the costal border and it is sometimes possible to map out a tender mass at that point.

As an illustration of an incomplete examination with a mistaken diagnosis I have in mind a case that came under my care with a diagnosis of gall-stones, but which proved to be a tuberculosis of the spine in the high dorsal region in which excruciating pain was felt in the gall-bladder area and rigidity was marked over upper right rectus muscle. In all cases of gall-bladder disease we have a history of gastric disturbance extending over a long period and a great many of supposed dyspepsias are secondary to disease of other abdominal organs such as the gall-bladder, appendix, pancreas, liver, etc.

Perforation of a gastric or duodenal ulcer, rupture of gall-bladder and perforating wounds of these organs or viscera are always accompanied by a great deal of shock, pain and collapse, with pain localized chiefly in the upper zone and, unless proper treatment is instituted early, followed by general peritonitis; especially is this true of perforations of the anterior wall of the stomach, while with perforations of the posterior wall infections will as a general rule be limited to the lesser peritoneal cavity, accounting for the less serious nature of such perforation.

Acute pancreatitis is a condition rarely diagnosed as such and is frequently found by the surgeon while operating for gall-bladder disease; it is most frequently diagnosed as gall-bladder disease, for the pain is usually located in the upper zone of the abdomen, is excruciating, accompanied by vomiting and frequently by jaundice. As the two diseases are so frequently associated the treatment is practically surgical in both conditions.

Before closing I should like to lay particular stress on the observance of the type of respiration accompanying these conditions. Lesions of the upper abdomen are accompanied by purely thoracic breathing, nature fixing the diaphragm so as to protect the organ affected as much as possible; this may also enable the physician to differentiate a beginning pleuritis or pneumonia in children, where the chief complaint of pain is in the abdomen, but where the breathing would be abdominal while the chest is more or less fixed. If the physician has a delicate sense of touch he may also be able to tell on palpation which portion of the rectus muscle is the most resistant and thereby assist in arriving at a correct solution of the condition; however, after all is said and done, it will still remain for the surgeon to diagnose the true condition only after the abdomen has been opened.

LIABILITY INSURANCE FOR PHYSICIANS, SURGEONS, DENTISTS AND DRUGGISTS

On the first day of February, 1912, my predecessor, Hon. Frank Blake, made an order prohibiting insurance companies from writing insurance indemnifying physicians, surgeons, dentists and druggists against liability for damages resulting from alleged error, mistake or malpractice in the practice of medicine, surgery, dentistry or pharmacy. The order, however, did not preclude insurance companies from writing policies indemnifying such persons against the cost of defense in any suit, whether groundless or not, brought against the insured, but on the contrary specifically provided that such companies could bind themselves to defend at their own cost, any such actions.

At the same time an order was made permitting such companies to write policies subject to certain conditions insuring owners of automobiles and chauffeurs against liability for both damages and the defense of suits growing out of the careless operation of automobiles.

I have carefully considered the ruling denying liability insurance to physicians, surgeons, dentists and pharmacists and have concluded that it is an unjust discrimination against them and not supported by law nor required by sound principles of public policy. This

ruling was made on the theory that such insurance had the tendency to make the physician, surgeon, dentist and pharmacist careless in the practice of their profession, and should therefore not be permitted.

If this doctrine should be allowed and applied as a principle of law, it would overthrow the foundations on which insurance is built, whether life, fire, accident, health or marine, because if we follow the subject of insurance to its basic root, it will be found that negligence in some form is at least collaterally related to substantially all of it and the interest of third persons is always more or less involved.

If indemnity should be denied the physician because it encourages negligence, it should be denied the property owner, because it induces him to neglect precaution against fire, which like the negligence of the physicians, frequently endangers human life.

If the doctrine is sound, why permit indemnity against the carelessness of the chauffeur who generally has but little involved personally, but has opportunities greater than the physician to cause injuries to third persons and loss of life.

Similar arguments as to every form of insurance could be given, but these sufficiently illustrate my point, and since it is now firmly established by legislative enactments and court decisions that the theory of indemnity against liability for negligence is not violative of public policy, this ruling should not be continued unless there is something peculiar to physicians, surgeons, dentists and pharmacists, which distinguishes them from all others.

It seems to me that if there be such a distinction it is in their favor, since their reputation for skillfulness, carefulness and efficiency is their most valuable asset, in fact their capital stock, and when it is impaired they are professionally insolvent. I do not believe the fact that one of this class held an indemnity policy would be a sufficient inducement to him to do anything to destroy or impair his standing and reputation as a professional man. He has more to lose personally by becoming careless than the insured chauffeur, property owner or employer of labor.

That there may be now and then those who violate this rule of human conduct, does not militate against the rule itself and the limitations under which I propose to permit these policies to be written, are in my opinion sufficient to place them on the ineligible list.

It also occurs to me that the distinction between insuring against liability for damages and insuring against the cost of suit defenses, is not one of principle, but merely of degree. To indemnify against the cost of defense as can be done under Mr. Blake's order is to protect the assured against the payment of attorney fee and other court costs, which may amount to as much or even more than the judgment for damages.

On the theory of cause and effect and that like reason makes like law, if the one encourages negligence, the other does also and should be prohibited.

I have decided to revoke the order of Mr. Blake relating to indemnity insurance for physicians, surgeons, dentists and pharmacists and to hereafter permit such insurance to be written subject to the following conditions, limitations and restrictions:

First: No policy shall be written indemnifying the insured against any claim arising from the violation of any law or ordinance on the part of the assured, nor if at the time of the alleged error, mistake or malpractice the assured or those to whom the policy extends, was under the influence of anesthetics, intoxicants or narcotics.

Second: Persons against whom as many as three final judgments for error, mistake or malpractice have been rendered shall be ineligible to such insurance and no company shall be permitted thereafter to write for such a person a policy, nor continue in force any policy then in existence.

CHAS. G. REVELLE.

Superintendent of Insurance.

Dated this 17th day of March, 1913.

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JUNE, 1913

EDITORIALS

THE ST. LOUIS SESSION

The 56th annual meeting of the Association closed at St. Louis on May 15 after a very successful session. The registration was not as large as had been anticipated; the attendance was probably larger than at any previous meeting, but many St. Louis members failed to register, hence only 533 names appeared on the registration book; 206 were St. Louis members.

The scientific sessions were well attended and the discussion on the papers lively and interesting. Perhaps the most important paper on the program was the one by Dr. E. W. Saunders, in which he announced his belief that he had discovered the manner in which anterior poliomyelitis is transmitted. The paper is published in this issue and should be carefully read by all members.

Several important changes were made in the by-laws: The annual assessment was raised from two to three dollars. The sentiment was unanimous that the Association could not continue its numerous activities nor enlarge its usefulness either to the members or to the public under a two dollar assessment, and the amendment was adopted without a dissenting vote.

The sections were suspended and the scientific work ordered done in general sessions in future.

The amendment to the by-laws, introduced last year, to prohibit members from splitting fees and doing contract practice for a nominal sum, was also adopted.

The defense committee reported ten new suits filed during the year. Six cases terminated in favor of the doctors and two against the doctors; these latter were appealed. Seventeen cases were pending at the time of making the report.

The secretary reported an increase of membership of 85, making the total membership 3,116. Two new counties were organized and several societies that had been idle for a long time were revived and started out determined to do good work in future. The charter of one society was revoked. Efforts will be made immediately to re-establish a component society in that county.

The JOURNAL has more than paid its expenses, but in order to do this it was necessary to require members to pay for illustrations accompanying their articles and for all reprints. Greater lib-

erality in these matters will, we hope, be possible next year.

The county secretaries held a very enthusiastic and profitable meeting in the afternoon of the first day and at 6 o'clock continued their deliberations while satisfying the wants of the inner man. It was at this session that Dr. W. S. Allee was presented with a gold watch as a token of the esteem and affection of his fellow secretaries and members.

Joplin and Jefferson City contended for the meeting for 1914, Joplin winning by a small majority which was afterwards made unanimous.

The delegates to the American Medical Association were instructed to support the proposed change to make all members of state associations members of the American Medical Association *ipso facto*; and that those members who subscribe for *The Journal of the A. M. A.*, and apply for fellowship shall be fellows.

The officers and committees elected are: President, E. H. Miller of Liberty; Vice-Presidents, C. H. Neilson, St. Louis; T. J. Downing, New London; M. B. Austin, Brunswick; G. D. Allee, Lamar; A. E. Hertzler, Kansas City; Secretary, E. J. Goodwin, St. Louis; Treasurer, J. F. Welch, Salisbury. Councilors: Sixth District, A. C. Crank, to fill the vacancy caused by the death of Dr. James Hanks of Brashear; Ninth District, A. R. McComas; Eighteenth District, Frank DeVilbiss; Twenty-First District, G. M. Rutledge; Twenty-Fourth District, T. W. Cotton. Delegates to American Medical Association, E. J. Goodwin and R. M. Funkhouser. Committee on Health and Public Instruction, A. R. McComas, R. M. Funkhouser and Dora Greene-Wilson. Defense Committee, Robert E. Schlueter, Chairman, W. B. Dorsett and R. Emmet Kane. Cancer Committee, Frank G. Hall. Vaccination Committee, F. H. Matthews.

The complete transactions will appear in the July issue.

SHOULD THE PATIENT KNOW?

While it is only in extreme cases that a surgical operation is performed without first fully informing the patient of its character, it is rather common to hear the advice that the nature or identity of a medicine be concealed from the patient. Thus a responsible manufacturing house has advised that the physician first inject its bacterial products and *then* prepare the patient for the severe reaction which is likely to follow. Another manufacturer has held it to be an advantage that the name of its opium preparation does not disclose its identity.

That physicians under certain circumstances believe it proper to keep the identity of a drug from their patients was illustrated recently, when Dr. W. C. Wescott (*Jour. A. M. A.*, Feb. 1, 1913, p. 387) advised that physicians take steps so that

the identity of prescribed proprietary remedies be not disclosed to the patient by the characteristic containers in which most of these are supplied. Finally, as representing the pharmacists' view, a St. Louis "U. S. P. and N. F. Propaganda committee" pamphlet strongly recommends that everything, from simple drugs to complex proprietary mixtures and even liniments, be colored or flavored so as to prevent recognition by the patient.

While an uninformed or hysterical patient often obliges the physician to pursue another course, in general it will be agreed that a patient has the right to know the nature of the treatment and the identity of the remedy which is being administered, and that concealment is permissible only when the interests of the patient or of the public demand it. A desire to be fair to the patient as well as ordinary prudence will make a physician want to disclose the identity and nature of such powerful drugs as, say, salvarsan, bacterial vaccines or toxins. This was recently pointed out in *The Journal of the American Medical Association* (Feb. 8, 1913, p. 465).

While in the case of morphin, opium and cocain, the physician has often taken measures to withhold their identity from the patient, either because of the patient's fear of these drugs or to prevent their use on the patient's own initiative, it is our belief that few disasters and few cases of drug addiction occur where the doctor is frank with his patient.

As was said before, the necessity of disguising the identity of proprietary remedies is sometimes advisable and permissible. Whether ethical or not, whether most valuable or utterly worthless, proprietary remedies are advertised extravagantly. While the physician is less likely to be affected by these optimistic reports or if misled, will soon revise his high estimate, the public takes the claim of miraculous virtues, combined with entire harmlessness, without reservation. More than that, not giving credit to other measures or to the tendency of the human frame to heal itself, a patient ascribes his recovery or improvement entirely to the proprietary. Wishing to be a public benefactor, he recommends the remedy promiscuously and himself employs it just as profusely in all ailments that simulate the one for which it was prescribed. It is this tendency toward promiscuous use which has led to the abuse of the acetanilid mixtures and of the valuable and relatively safe substances sulphonal, trional, phenacetin and veronal. It is this objection to proprietaries which led Dr. Wescott to suggest that physicians ask their druggist not to dispense such remedies in their original packages.

While the circular of our "pharmaceutical propagandists" contains much good advice to physicians, we cannot endorse its sweeping recommendation to disguise all medicaments.

SECTARIANISM IN MEDICINE

The fallacy of graduates of sectarian colleges joining our Association without completely severing all connection with sectarian medical bodies and ceasing sectarian practices was graphically demonstrated recently in St. Louis during the session of the Missouri Homeopathic Society. A former member of the homeopathic society resigned several years ago, and wishing to practice medicine, not a creed or ism, joined the St. Louis Medical Society. The homeopathic society ignored his resignation and two years afterward, according to newspaper accounts, expelled him.

"STRICTLY ETHICAL"

Mud in various forms has been alleged, from time to time by persons interested in the transformation of the mud into dollars, as highly beneficial in certain forms of disease. Now comes a firm, of course from Missouri, the home of the patent-medicine man, claiming that they "cut out the mud," hence their preparation is superior to the muddy article. They call it olio-phlogosis, and claim to be "strictly ethical" in their dealings. Therefore, they want us to assist them in bringing the stuff to the attention of our members. The article is made by the Mystic Chemical Company of Kansas City, of which a graduate physician is manager. In addition to the mudless preparation they sell various mystical articles, such as "Bowel Tonic Tablets," "Antistrumatic Tablets," "Mystic Nerve," "Strumol," "Mystic Pain Tablets," "Nuchromizing Tablets," etc.

Olio-phlogosis is composed of oil gaultheria, oil eucalyptus, oil thyme, oil abies canadensis, boric acid, resorcin, quinin bisulphate, iodine resublimated, suspended in a suitable glycerine base, if the formula on the bottle does not delude. It appears to be glycerin with some essential oils swimming on top.

We refused to lend ourselves to the exploitation of this product.

THE FOURTH OF JULY AGAIN

There was once an Irishman who ventured the observation that he had always lived through the balance of the year if he succeeded in surviving a certain given day. Possibly our son of Erin had in mind the Glorious Fourth, which to live through was, until recently, ample occasion for self-congratulation.

In 1903, the American Medical Association launched its propaganda against the criminality of the custom of observing Independence Day by giving everybody—children, minors and other irresponsibles—powder cannon, giant fire crackers and deadly "toy" pistols with which to cele-

brate the birthday of America's freedom by blowing up a certain percentage of the population.

For a number of years prior to 1903 the Fourth of July had become a serious question; its effects were more like a great plague that left dead and dying in its path, than a fête. Then the American Medical Association began its protest, and after several more deadly Fourths had come and gone the people woke up. Last year the observance of the Fourth of July was almost rational, and it is with reasonable hope that we look forward to the coming of Independence Day this year, for we believe that everywhere the sane and safe observance will be the rule.

In many towns and cities last year the Fourth of July was turned over to the children (they were unarmed) and as a consequence the day was a delight, and a pleasant memory instead of a busy day for hospitals, doctors and undertakers.

The people have responded to the American Medical Association's appeal for sanity in the matter of celebrating the Fourth of July. Maybe the public will sometime come to a like realization of the value and benefit to be derived from certain suggestions on sanitation and general hygiene that the medical profession has to offer.

AMERICAN MEDICAL ASSOCIATION— MINNEAPOLIS SESSION

The Sixty-Fourth Annual Meeting of the American Medical Association promises to be a most enjoyable social and recreative excursion as well as an instructive scientific session. All the meetings will be held in the buildings of the University of Minnesota, except the opening session on Tuesday evening, and the President's reception and ball on Thursday evening. A number of Missouri members have places on the scientific program.

The hotels, as usual, will be filled, so reservation should be made in advance. Dr. S. Marx White, Donaldson Building, Minneapolis, Chairman of the Committee on Hotels, will assist in making hotel reservations. The hotels in St. Paul may also be utilized.

Numerous sidetrips have been arranged for the entertainment of members and several excursions will be made to Yellowstone Park.

The official route from St. Louis is over the Wabash Railroad. Trains will leave at 2:15 p. m., arriving in Minneapolis at 8:20 a. m. This train is electric lighted throughout, double-screened, Garland ventilated and fan-cooled. The rate from St. Louis is \$19.50 for the round trip, tickets being good until October 31.

From Kansas City the official route is over the Chicago Great Western. Train leaves Kansas City at 1:45 p. m., arriving at Minneapolis at

7:45 a. m. This train is equipped with all modern improvements of up-to-date travel. The rate for the round trip from Kansas City is \$16.50, tickets good until October 31.

LETTERS FROM EUROPE

One of our members who is making his annual trip abroad has consented to send us a letter for publication once a month. We hope these letters will prove interesting not only to those who have already been across and viewed some of the scenes described in the letters, but especially to those who contemplate making a European trip later on. The first letter appears in this issue.

OBITUARY

RICHARD LOVE JOHNSON, M.D.

Dr. Johnson was born at St. Peters, near Benton, Loundes County, Ala., Jan. 26, 1841. He graduated from the Medical College of the State of South Carolina in 1861. For a few months before graduating he did some hospital work in Richmond, Va., and then was assigned as a hospital steward at McPhersonville, S. C. After receiving his diploma he was again ordered to Virginia and was assigned to duty with the Palmetto Sharp Shooters under Colonel Jenkins, and was in the battles of Cold Harbor, Gaines' Mill, second Manassas, Boonsborough, Sharpsburg and Fredericksburg. In 1863 he was assigned to the Fifteenth South Carolina Regiment, and in this regiment was in the battles of Chancellorsville, Gettysburg, Chickamauga and Knoxville. In 1864 he was again assigned to the hospital service in Richmond, in which service he remained until the close of the war.

In 1861 he was married to Miss Isabel Mackey of Mackey's Point, S. C., who lived until about a year before the doctor's death. To them were born nine children, four of whom—two sons and two daughters—survive.

At the close of the war, Dr. Johnson returned to South Carolina, and there and in several other states of the South he practiced his profession until 1879, when he moved to Missouri, locating in Rolla, where he practiced until the Fall of 1911, when he had a stroke of apoplexy affecting his speech and memory of proper nouns, and also partially paralyzing his lower extremities. Showing little improvement by the Spring of 1912, and being unable to practice his profession, he entered the Masonic Home in St. Louis, where he remained until his death, March 15, 1913, due to a second and more severe stroke of apoplexy occurring three days before. He was buried with the ceremonies of the Episcopal Church and the Masons in Rolla City Cemetery.

Dr. Johnson was an expert surgeon and an excellent all-round physician, and was ethical in every sense of the word. He did much toward organizing the profession into county medical societies, and was the first and for several years Councilor of the Twenty-Sixth District of Missouri. He was a faithful attendant at the meetings of the medical societies to which he belonged, and was held in high esteem by all the members of the profession throughout the state who were acquainted with him. He was a member in good standing in the Missouri State Medical Association, the Rolla District Medical Society and the Phelps County Medical Society, and we believe was a member of the Society of Confederate Surgeons.

S. B. ROWE, M.D.

PRINCE A. MORROW, M.D.

Dr. Prince A. Morrow, eminent dermatologist and syphilographer, died at his home, March 17, 1913, at the age of 66.

He was born in Kentucky, received the degree of A.B. from Princeton College, Kentucky, at the age of 18, and M.D. from New York University in 1874. He soon gained prominence as a lecturer and writer on dermatology and syphilis. He translated many important works from the French, held membership in several societies specializing in dermatology and syphilis, and was one of the founders of the *Journal of Cutaneous and Venereal Diseases*. The best known of his works are "The Atlas of Syphilis and Venereal Diseases," "System of Genito-Urinary Diseases, Syphilis and Dermatology" and "Social Diseases and Marriage," which appeared in 1904.

But crowning these and other notable achievements in his profession was the proud distinction of having been the founder of the American Society for Sanitary and Moral Prophylaxis. He was its president and guiding spirit until shortly before his death. Realizing the tremendous amount of sorrow, sickness and shame arising from ignorance of the sex functions, he set about the task of "cleansing the moral atmosphere and of imparting correct information on sex matters to the budding curiosity of youth and of giving honest food to clean young minds, rather than the distorted nourishment they had been wont to receive."

For this purpose he gathered about him a group of twenty-five timid, half-hearted, but faithful men, and organized the Society for the Study and Prevention of the Diseases Arising from the Social Evil. It was a dangerous and a doubtful venture at the time, but the movement has spread rapidly and is now an assured success. The St. Louis Society of Social Hygiene, which was formed soon after, along the same lines, co-operated with Dr. Morrow in organizing the American Federation for Sex Hygiene, in June, 1911.

Dr. Morrow has passed away, but his work remains as an enduring monument to the strong, deliberate, big-hearted man who had the courage and ability to launch a movement which, on account of a deep-seated and ancient prejudice, was long taboo, but which will be of inestimable benefit to the human race.

H. E. K.

NEWS NOTES

W. B. SAUNDERS COMPANY, publishers, of Philadelphia and London, have issued another edition (seventeenth) of their handsome illustrated catalogue. This edition describes nine new books and ten new editions, not described in the previous issue. Any physician can get a copy of the Saunders' catalogue by dropping a line to these publishers.

SINCE April 1 the following articles have been accepted for inclusion with New and Nonofficial Remedies:

Coli Vaccine (Lederle Antitoxin Laboratories).

Gonococcus Vaccine (Lederle Antitoxin Laboratories).

Pneumococcus Vaccine (Lederle Antitoxin Laboratories).

Staphylococcus Vaccine (Lederle Antitoxin Laboratories).

Staphylococcus Albus Vaccine (Lederle Antitoxin Laboratories).

Staphylococcus Aureus Vaccine (Lederle Antitoxin Laboratories).

Streptococcus Vaccine (Lederle Antitoxin Laboratories).

Typhoid Vaccine (Lederle Antitoxin Laboratories).

Typhoid Vaccine for Prophylactic Treatment (Lederle Antitoxin Laboratories).

CORRESPONDENCE

HOSPITAL ADMINISTRATION IN GERMANY

The physician who was showing me about in one of the great Berlin Municipal Hospitals gave me the following answer when I asked him how the city could afford such splendid institutions.

"We cannot afford to be without them," he said. "Given an individual, who, when he is sick, must be cared for by the municipality, the following points should be taken into consideration from a purely economic standpoint. First, to get the individual well as soon as possible; second, to get him completely well so that he will not soon return; third, to have available such scientific method for the study of his case as would enable you to better treat the next similar case."

Everywhere in the world German medical science, German medical institutions and the German medical profession by right enjoy the highest reputation. Moreover, in Germany itself the medical profession is given greater recognition and has a higher social standing than the profession in our own country. One reason for this is, perhaps, the long and tedious training the German doctor has to undergo before he is given the right to practice medicine, and also there is the fact that each and every man admitted to practice must have undergone very much the same training. In our country the degree of M.D. means absolutely nothing in itself, either as to professional or social worth, since the preliminary training, and even the medical training, necessary to obtain a degree, varies so tremendously.

The German medical student must first have passed his matriculation examination, the final test before leaving the "gymnasium," before he goes to the university, where he must study natural science for five terms—that is, two and a half years. Natural science comprises six branches, which are, anatomy, physiology, botany, chemistry, physics and zoology.

This preliminary period is concluded by a rigorous examination known as the "Tentamen physicum." Having passed this, the student must take up a practical course, during which time he attends lectures at the hospitals, assists at operations, and does dissecting. This course comprises the clinical branches—internal organs, surgery, ophthalmics, obstetrics, gynecology, pathology, anatomy, pharmaceuticals, hygiene and mental diseases. A special course of study in neck and throat diseases must also be followed. After these five years of hard work, the student, if he has gotten through the "Tentamen," will be ready for his state examination to qualify to become a doctor of medicine. The candidate is examined in each of the subjects of the practical course, and the examination is a very lengthy test. At the smallest universities the "Staats-examen" takes eight weeks; at others, three months; and at the greatest and most famous universities—such as Berlin, where most medical students take their degrees—from six to nine months. After successfully passing this last test, the student must take his degree as doctor of medicine. This examination absorbs another three months, after which the young doctor must serve what is known as his "practical year" in one of the great hospitals, giving his services for nothing. Either before or after his university career he must have served his term in the Army, which, in the case of medical students, means six months as Army doctor. Only in the most favorable conditions, at the end of seven and a half years the German doctor is ready to practice.

Rarely even then does the young man start out for himself, unless he is financially independent,

or becomes so through marriage. Usually he has to take a position as assistant doctor, either at a private or at a public hospital. For surgeons this means as much as twelve years; for specialists in other branches, from three years on, before they become sufficiently well known to collect a fee for their services.

Earning fame is easier than earning a living in German medicine. I remember the shock it gave me on my first trip abroad meeting a man, world famous in medical science, to find that his total income was only four hundred dollars a year. In the large cities doctors may be roughly divided into three classes. These are the doctors who work exclusively for the bureau of the sickness insurance funds; they get about twelve cents a head for their patients and are able, in many cases, to earn as much as \$3,750 annually, by this treatment en masse. The "Kassendarzte," as they are called, represent about 40 per cent. of the profession in Berlin, and are not specially looked up to by their colleagues. Then, again, general practice may be combined with a restricted amount of sickness insurance work, and these, in Berlin, total another 40 per cent. Specialists account for 14 per cent. more, and the remaining 6 per cent. are the exclusive family practitioners with fine houses, great names, and aristocratic clientele—the "Humboldt Building" class of Germany. Very few men, it is said, collect as much as \$15,000 a year in Germany, although there is one gynecologist who pays tax on 300,000 marks of annual income, and it is whispered that he makes double that amount.

In order to understand more exactly the administration of the Berlin hospitals, it is necessary to review briefly the municipal government of the city of Berlin. The chief municipal officer is the *Bürgermeister*, who is usually chosen for life. Herr Kirschner has held the position in Berlin since 1899. He presides over a body of thirty-four men, called the *Magistrate* (corresponding to our Board of Aldermen or Council). A certain number of these men, who are the heads of departments (finance, schools, building construction, etc.), are salaried officials, and are elected for twelve years. The unsalaried members are elected for six years. This body is elected by the lower house. A reelection is the usual thing, therefore we have to begin with an important factor that is lacking with us, a stable municipal government. There is also a second body, directly representative of the citizens, consisting of one hundred and forty-four members (*Bürgerschaftsvertretung*) who are elected for six years by the people. A half of these men must be house owners. This body has the right of control of the whole administration. From these two bodies a deputation is chosen for the administration of various municipal affairs, and it is in the hands of the body (whom we might call Overseers of the Poor) to have in charge the affairs

relating to the municipal hospitals. The Armenpflege of Berlin, of which Dr. Münsterberg is the head, has a budget of 36,000,000 marks annually. About one-half of this, probably, goes to the care of the sick poor of Berlin and the support of the municipal hospitals.

The following facts regarding hospital administration I found in the excellent book on that subject by Merke.¹

There are two classes of hospitals in Germany, those under the direct administration of the state, and those under the administration of the city. In Berlin the Charité is of the former class, while the other large hospitals, such as the Rudolf Virchow and the Moabit, are municipal institutions.

The municipal hospitals are more or less closely identified with the Armenverwaltung, or what we would call Overseers of the Poor, and form an integral part of the charity work of the city. The direct administration of one of these municipal hospitals is in the hands of a superintendent (or director), who acts as a director of the entire hospital; or the superintendent may act in co-ordination with one or more medical directors, or in some instances he is subordinated to a medical director and officiates under the same. That is, there are three systems of directorship: (1) a lay director, to whom one or more medical directors are subordinate; (2) an equal division of authority between a lay director and one or more medical directors; (3) a medical director, to whom a lay director is subordinate. In any event, the administrative and professional duties are in separate hands.

There is at the present time in Germany much discussion as to which of these methods is the best. The medical profession naturally favor the latter mode. The general opinion seems to be, however, that the physician has sufficient to do in attending to the medical side of hospital management, and that all other affairs should be in the hands of an administrative official who has nothing to do with the care of the sick, but looks out for the manifold detail that is incident to the running of a large institution apart from the treatment of its inmates. It is considered that each of these duties is enough for the entire occupation of any one man.

Most especially the municipality strives to obtain as medical directors for the larger hospitals men who in their professional training and scientific accomplishments have obtained special fame. The knowledge and the professional ability of these men must be such that first of all the sick patients of the hospital will be properly attended to; but moreover, the men selected must be of such a type that they can train the young physicians, who serve with them, so that the large hospitals shall act as a training school, where the

highest type of medical knowledge may be transmitted to the younger men who are fortunate enough to have a place on the hospital staff. These men are practically always university teachers and not unfrequently investigators whose researches make their name known throughout the medical world.

In the Berlin hospitals the medical director is elected only for a certain term of years, and while under ordinary conditions the position is held for life, it is possible to dispose of an individual who has not done his duty by a failure of subsequent election. In such an instance the lay superintendent becomes the responsible head of the institution. These men are, therefore, most carefully elected.

The lay director of a Berlin hospital must be not only qualified in every branch of his department, but he must be in addition especially trained in hygiene. He is a sort of special health officer in so far that he must prevent a development of any epidemic in his hospital that might occur from an unsanitary régime. A man must have developed himself both along practical and theoretical lines through careful study and many years of actual work in order to be considered a candidate for director of one of these institutions. Given a man of this sort there is little question of conflict between him and an adequate medical director in the management of hospital affairs.

In Germany the general hospital at Hamburg is in charge of a medical director; the Charité Hospital in Berlin has both a medical and a non-medical director; in most of the municipal hospitals of Berlin there are two medical directors, one for internal medicine and one for surgery, and also a non-medical director, all three being coordinates.

The choice of assistant physicians is left to the medical director or is more usually determined by the hospital board of administration (the so-called *kuratorium*). Such a candidate is chosen only after the most complete investigation of his medical ability. Usually the candidate has been associated with the hospital in an inferior capacity and is promoted on account of his knowledge, character and ability. The assistant physician receives a salary from \$150 to \$300 a year besides his living.

In hospitals where the number of patients in a single department is so large that a single medical director cannot see to them all personally, the department is divided and a physician placed at the head of each division, who independently is responsible for the patients under him. The same thing holds when there are divisions in the specialties, as for instance, nose and throat, ophthalmology and gynecology. Each of these *Oberärzte* are supreme in their own division, subject, of course, to the director-in-chief of the hospital.

1. Verwaltung, Betrieb und Einrichtung der Krankenhäuser. II. Merke, Jena, Verlag von Gustav Fischer.

The voluntary assistants, so-called, are young physicians who have just passed the state examination and wish to perfect themselves in practical hospital work before entering the practice of medicine. They correspond to our hospital interns.

In Germany this practical year is now required of every man after he has passed his state examination before he is allowed to enter on private practice. The voluntary assistant has practically no authority in the hospital. He makes visits with the assistant physician, takes temperatures and makes laboratory examinations, such as sputum, urine, etc. He can give neither medical nor dietetic treatment to the patients without orders from the assistant physician.

Briefly reviewing the above we have then on the medical side of the German hospital a director who corresponds to our superintendent in some instances, but in most cases whose duties are limited to the medical direction of the hospital only. Second, a number of assistant physicians who in some instances correspond to our visiting staff, and in some instances correspond to our assistant superintendents. From these latter are chosen a certain number of men, depending on the size of the hospital, who are heads of departments *oberaerzte*. These men would correspond to our heads of services in America. Third, we have the voluntary assistants who correspond to our interns.

The municipal hospitals of Berlin include Friedrichshain, which was the first to be constructed, in 1868, and which has about twelve hundred beds; Moabit, practically the same size; Urban, with about nine hundred beds; Rudolf Virchow, with accommodation of about two thousand sick; Kaiser Und Kaiserin Friederich Children's Hospital; Gitschiner Str. Hospital.

The newest of these is the Virchow Hospital, which is in reality a small village consisting of sixty-two separate buildings beautifully distributed on a large tract of land which apparently has no end and which is rich in shade trees and flower gardens. Friedrichshain and Moabit are also built on the pavilion system; the latter having fifty-three separate buildings.

Leaving out of consideration the Children's Hospital, the Royal Charité and the Charlottenburg Krankenhaus, which is really a Berlin municipal hospital, we still have a pro rata of twice as many beds for the sick poor of Berlin as we have for the sick poor of St. Louis.

In considering the number and extent of these Berlin municipal hospitals it should be borne in mind that they are not charity institutions to the same extent that our city hospitals are. Each patient is charged two marks, fifty pfennigs (60 cents) a day while in the hospital. Even the working classes who receive small wages are able to pay this fee, because of the industrial insurance which they carry.

This fact appears to be one worthy of consideration by the hospital boards of our larger cities. Those who have had experience in our institutions know how terribly they are abused and how impossible it is to get even a small sum from patients of this class in our cities. For example, in the St. Louis Sanatorium an attempt is made, not superficially, but as insistently as possible, to collect a fee of \$15 a month for patients in this institution. It has been possible to collect this fee in perhaps 2 per cent. of cases. The plan of industrial insurance insisted on by the Prussian Government for its working people relieves the municipality not only of a tremendous burden, but also makes possible much finer institutions, much better treatment of the sick, and hence much elimination of time wasted by sickness by these people than could be obtained in any other way. Of course, there are serious objections to this charge for patients where rules are strictly enforced as they are in Prussia; for instance, take the case of a servant girl who receives the munificent salary of \$6.25 a month (21 cents a day). When she is sick and has to be taken to the hospital her employer must pay for her during the first four weeks of her stay, but at the end of this time she is responsible for her own bill. An instance is recounted where an intern seeing a girl in tears and asking what was the matter, obtained this reply: "This morning I received a letter saying that my furniture has been seized by the Government and put on sale to pay for my staying here." It is doubtful if the American cities would ever arrive at so rigorous a proceeding as this, even to avoid increase in the tax rate for the support of eleemosynary institutions.

Recently some one made the astonishing discovery that in the St. Louis City Hospital the interns, nurses and superintendents were getting more food than were the patients. While it is a well-known fact that a healthy individual doing a hard day's work requires more food than an individual who is lying in bed sick with pneumonia or typhoid fever or most any other disease, nevertheless the press made it appear that the poor patients were being starved while the interns and nurses were living in luxury. Probably the proper proportion and distribution of food in hospitals has been worked out with greater scientific accuracy by the Prussian Government than anywhere else in the world. It is, therefore, interesting to note the exact amount spent per day for food in the Rudolph Virchow Hospital, and how this is divided: For the physicians' table the cost per capita a day is 2.59 marks. It costs for supervisors and nurses 1.94 marks. Each of the ordinary helpers eats to the extent of 1.36 marks. The cost per day for food for each patient is 1.03 marks.

R. L. T.

STREET CAR AMBULANCE

An article in the *Scientific American* for April 5, describing a street car ambulance used in Bahia, Brazil, stated that this was the first time a street car ambulance had been built and used in any city. Dr. George Homan of St. Louis, who originated this idea in 1894, and put it into practical operation, very naturally desires to correct this wrong impression, and to that end wrote the following letter to the *Scientific American*, which they have promised to publish:

St. Louis, April 10, 1913.

Editor *Scientific American*,
New York.

Permit me to call attention to an error in your issue of 5th inst., contained in the article headed "Street Car Ambulance" on page 316.

I send herewith cuts showing interior and exterior views of an ambulance car originated by the writer when Health Commissioner of St. Louis in 1894, and built after his plans by the Union Depot Railroad Company of which corporation Mr. John Scullin was then president.

A full description of the car, plan of operation, etc., will be found in the Eighteenth Annual Report of the Health Commissioner, pp. 48, 49, 68. Service by this car was inaugurated in December, 1894; Hon. C. P. Walbridge being Mayor and President of the Board of Health.

Hon. Charles Nagel, late Secretary of the Department of Commerce and Labor, was also a member of the Board at that time and is familiar with the facts as stated above.

Cuts of the car with full descriptions appeared in the *Chicago Street Railway Review*, for Jan. 15, 1895; *The Hub*, New York, March 1, 1895, and also in *Harper's Weekly* about the same time.

Trusting that you will kindly correct the error pointed out, as South America is by no means ahead of our country in this particular.

Very truly yours,

GEORGE HOMAN, M.D.

323 Odd Fellows' Bldg.

NO FEE REQUIRED TO ATTEND CLINICS

To the Editor:—It may interest you to know that the law requiring non-resident physicians and students to pay a fee of \$10 to attend the clinics in the city institutions has recently been repealed.

I believe you will agree with me that this is a step forward in building up medical St. Louis, since the doors of the institutions are now open to all reputable physicians who may apply and are willing to abide by the regulations of the institutions.

You may also be interested to know that recently an ordinance was passed providing for three resident physicians at the City hospital instead of one. There will be a resident physician assigned to the surgical department, one assigned to the medical department and one to the department of mental and nervous diseases. These physicians must have had two years' previous experience in the City Hospital, and are appointed after competitive examination, at a salary of \$100 per month for the first year, and are eligible for reappointment on their record of service for two succeeding years, with an increase of \$25 per month in salary. They cannot be reappointed for more than three successive years.

You may use this information according to your judgment.

Yours truly,

C. H. SHUTT, M.D.

Hospital Commissioner.

SOCIETY PROCEEDINGS

THE MEDICAL SOCIETY OF CITY HOSPITAL ALUMNI, ST. LOUIS

The annual public meeting of the society was held under the auspices of the committee on public health and legislation, Thursday, May 1, in the auditorium of the St. Louis Medical Society.

The program was limited to a consideration of the advisability of a premarital medical examination. It was discussed from various viewpoints as follows: "From the Standpoint of the Church," by Rev. Wm. V. Berg; "From the Standpoint of the Woman," by Mary H. McLean, M.D.; "From the Standpoint of the Medical Profession," by Amand Ravold, M.D.; "From the Standpoint of the Legislator," by Mr. Percy Werner.

BENTON COUNTY MEDICAL SOCIETY

The regular meeting of the Benton County Medical Society was held at Warsaw in Dr. Savage's office, April 25. The president, Dr. Dunlop, having sold out and left the county, and Dr. E. H. Gist, vice-president, not having arrived, Dr. Dillon was elected president pro tem and opened the meeting. The regular business was attended to and letters of interest read from different sources.

Dr. J. P. Van Allen, Cole Camp, was presented for membership and unanimously elected. Dr. J. W. Clark, Cross Timbers, was reinstated to membership by payment of dues; also Dr. Maurice Dick, Cole Camp, the same.

Next in order of business was the election of president to fill the unexpired term of Dr. Dunlop who had left the state. Dr. Van Allen was nominated and unanimously elected president.

Dr. Dillon, Fairfield, brought a case for clinical study which was of interest to everyone present, being a case of disease of the femur with contraction of the tendons producing deformity of the knee but without ankylosis. The result of examination brought out the opinion that the only thing to do was to cut down to the bone and find out what was causing the discharge.

Dr. J. R. Smith read a paper on "Abrupton of the Placenta."

After the reading and discussion of this paper, a motion was made to appoint a committee to draw up resolutions of thanks to be presented and published in our county paper to our representative, Mr. Morgan, and Senator Grother for the good work done in the legislature in defeating bad bills.

Drs. Bay and Cuddy were kept from being present on account of professional work and sent their regrets. Those present were, Drs. Marion Dillon, Fairfield; E. H. Gist, Frisco; J. P. Van Allen, Cole Camp; E. L. Rhodes and W. G. Jones, Lincoln; E. F. Haynes, H. G. Savage, R. L. Pomeroy and J. R. Smith, Warsaw.

Delegates were instructed to vote for Dr. E. H. Miller for president of the state association.

The committee on resolutions reported the following which was unanimously adopted:

WHEREAS, Our senator, Hon. Louis Grother, and our representative, Hon. John E. Morgan, deserve the thanks of the people for their active protection of the health of the people of this state at the last session of the legislature, and especially for their resistance to the efforts of various quacks and charlatans to secure laws freeing them from all restraint in attacking the health and purses of our people; now, therefore, be it

Resolved, By the Benton County Medical Association that we do hereby express our appreciation and thanks to our said senator and representative for their official acts aforesaid.

H. G. SAVAGE,
E. F. HAYNES,
J. R. SMITH, Com.
J. R. SMITH, M.D., Sec.

GASCONADE-MARIES-OSAGE COUNTY MEDICAL SOCIETY

The Gasconade-Osage-Maries County Medical Society met in Belle, Thursday, April 24. The following doctors were present and participated in the meeting: Drs. Fredrick Auferheide, C. A. Bunge, J. J. Ferrell, C. T. Leach, J. J. Rademacher, O. C. Fritz, I. M. Owens, O. H. Brown, J. W. Burgess, John D. Seba, William E. Johnson, J. E. Jose, C. E. Legg and Mack Thompson.

The afternoon was almost wholly devoted to clinical work in Dr. Burgess' office. After the clinical material had been exhausted the meeting took up the scientific program. The following questions were widely discussed: Proper splints and bandages for fractures near the hip joint; fractures of the clavicle; bacterin and vaccine therapy. The conclusion was that bacterins do good in many cases where a correct diagnosis had been made and the treatment resorted to at an early stage of the disease.

At night Dr. O. H. Brown, St. Louis, lectured to a large congregation in the Methodist Church on the subject of "Health and Hygiene." He was given the most respectful attention.

After this the meeting was adjourned to the parlors of the Grand Hotel where a business meeting was had.

The next meeting will be held in Meta the second Thursday in September, the date to be selected by the chairman and the secretary.

JOHN D. SEBA, M.D., Secretary.

HOWARD COUNTY MEDICAL SOCIETY

Howard County Medical Society met at Fayette, at 2 p. m., Friday, May 2. Present: Drs. Wood, Bonham, Lee, Burgwin, Richards, Moore and Watts. Dr. Richards, president, in the chair. There were no clinics or papers. Dr. Richards gave a very interesting account of a case of lacerated perineum.

The committee on hospitals was granted further time. Dr. Moore by vote of the society was requested to give us a talk on "Etiology and Diagnosis of Stone in the Bladder and Enlarged Prostate," at the next meeting.

Dr. C. P. Megee having returned to Fayette was by vote received back into the society and paid his dues.

C. W. WATTS, M.D., Secretary.

JEFFERSON COUNTY MEDICAL SOCIETY

Jefferson County Medical Society met at Pevely, May 10, and the following officers were elected: president, Dr. N. R. Donnell, Herculaneum; vice-president, Dr. C. G. Harris; secretary-treasurer, Dr. O. E. Hensley; delegate, Dr. R. E. Donnell; alternate, Dr. N. R. Donnell.

O. E. HENSLEY, M.D., Secretary.

MONROE COUNTY MEDICAL SOCIETY

The Monroe County Medical Society met in Paris, Tuesday, April 22, with the following members present: Dr. H. C. Payne, president; Dr. F. H. Carr, secretary; Drs. McMurry, Ragsdale, Cooper, Moss, Goodier, Short, Bell and Dixon. There were no papers presented, the meeting being held for the purpose of clinics. Dr. C. C. Conover of Kansas City was present by special invitation and gave a splendid and most interesting clinic on diseases of the lungs, patients being presented by the different physicians. After examining and discoursing on the physical aspects presented by the patients, Dr. Conover emphasized the points made by presenting several specimens with lantern slides. In all it was a most interesting and instructive meeting and I recommend that all societies contemplating holding such meetings will do well to secure Dr. Conover if they can.

After the meeting a delightful dinner was served by the ladies of the Christian Church to the doctors, their wives and invited guests, including the dentists of Paris and their wives.

In the evening a public meeting which had been extensively advertised was held in the large auditorium of the church, at which time Dr. F. J. Lutz of St. Louis delivered an address on the subject, "The Relationship of the Profession and the Laity," which was listened to by a fairly large and appreciative audience. In his address Dr. Lutz referred to the part Monroe County had played in the medical history of the state and paid a fine tribute to Drs. A. E. Gore and his son, Dr. D. C. Gore, both of whom served as presidents of the Missouri State Medical Association. He was introduced by the Hon. F. W. McAllister, former senator from this district, and after tracing the growth and development of medicine for a few minutes he devoted some time to a discussion of hygiene, sanitation, preventive medicine, the dangers of patent medicine frauds and adulterated drugs, foods now offered the public, by reason of the unrelenting activities of the American Medical Association. Community cleanliness along with proper home hygiene, screening against flies, proper disposal of garbage, etc., were urged.

The "Paris Mercury" pays a high compliment by saying "Not in recent years have Paris people heard or enjoyed a better or more instructive address or one evidencing a wider culture. A man like Dr. Lutz is worth something to his city and his state."

C. H. DIXON, M.D., Councilor.

NEWTON COUNTY MEDICAL SOCIETY

The Newton County Medical Society met in the office of Dr. Bowers at Neosho, May 6. A good number was present and much enthusiasm prevailed. Dr. H. L. Porter was in his usual place as president.

The society proceeded to elect the following officers for the ensuing year: president, Dr. E. M. Roseberry; vice-president, Dr. U. S. Chapman; secretary, Dr. Horace Bowers; delegate, Dr. H. L. Porter; censors, one year, Dr. J. B. Gancock; two years, Dr. U. S. Chapman; three years, Dr. R. C. Lamson.

After some slumbering and rest the society voted unanimously to get up and do some good work for the present year. The meetings will continue to be held on the second Tuesday in each month until further notice. The president will make an effort to arrange with the Commercial Club to hold the meetings in the club rooms after to-day.

HORACE BOWERS, M.D., Secretary.

PIKE COUNTY MEDICAL SOCIETY

Pike County Medical Society met in regular session in Clarksville, at the office of Dr. J. E. Bankhead, the president, Dr. C. L. Bankhead, Paynesville, in the chair.

The following members were present: Drs. J. E. Bankhead, Clarksville; C. L. Bankhead, Paynesville; E. M. Bartlett, Clarksville; M. O. Biggs, Bowling Green; J. D. Davis, Louisiana; J. W. Dreyfus, Louisiana; T. G. Hetherlin, Louisiana; J. J. Kennedy, Frankford; F. V. Keeling, Elsberry; C. P. Lewellen, Louisiana; J. H. Story, Clarksville.

The applications of Drs. Whitt, Gibbs and Lewellen were voted on and all were elected to membership.

Dr. C. L. Bankhead, Paynesville, read a very interesting paper on "Arteriosclerosis," which was followed by a general discussion.

Dr. T. Guy Hetherlin, Louisiana, introduced and demonstrated on his doll, the method of resuscitation of new-born infants, as practiced by Dr. Duffield of Pittsfield, Ill.

Dr. Hetherlin reported a case of pelvic cellulitis under his care.

The society adjourned to meet in Louisiana, June 2.
F. W. KEELING, M.D., Secretary.

RAY COUNTY MEDICAL SOCIETY

The Ray County Medical Society met at Richmond on May 12, in called session. Election of officers as follows: president, Dr. R. Sevier; vice-president, Dr. T. B. Cook; treasurer, Dr. L. D. Greene; secretary, Dr. J. E. Ball; delegate to state medical society, Dr. Sevier; alternate, Dr. W. G. Estelle. Dr. James Buchanan, Richmond, and Dr. McGhee, Hardin, were elected members of the Ray County Society. There were no clinical cases presented and no papers read.

The next meeting will be held at Richmond, May 18, at a hotel, with a banquet following the session. The physicians of the county will be invited to bring their wives.

J. E. BALL, M.D., Secretary.

SCHUYLER COUNTY MEDICAL SOCIETY

Schuyler County Medical Society met in regular quarterly session in the office of Drs. Potter and Potter, Lancaster, April 24. The meeting was called to order by Dr. B. B. Potter, president.

Members present were: Drs. B. B. Potter, W. A. Potter, W. F. Justice, J. H. Keller, H. E. Gerwig, A. J. Drake and J. B. Bridges. There were also present as visitors: Drs. A. A. Justice, E. H. Mitchell, D.D.S., Mrs. Belle Bunch, county superintendent of public schools, Professor Brooks of Lancaster High School with the senior class, the Rev. C. R. Woods and others.

A communication from state secretary, Dr. E. J. Goodwin, asking our society to name the subject for our public meeting, was read and same deferred as the date had not yet been established.

A communication was read from the Clay County Medical Society asking that Schuyler County Medical Society support or indorse Dr. E. H. Miller, Liberty, for president of state medical society. This was left at discretion of the delegate, but all expressed a very favorable opinion of Dr. Miller.

The president appointed a committee of censors consisting of Drs. W. F. Justice, J. H. Keller and W. H. Zieher.

Next in order was the program. Dr. W. A. Potter read a paper on the "Anatomy of the Eye," with illustrations. A paper was then read by Dr. A. A. Justice, D.D.S., on "Oral Hygiene." Next a paper by Dr. J. B. Bridges on "Preventive Medicine." Mrs. Belle Bunch read an article on "Pure Food." These subjects have been chosen as suitable for the occasion of a public meeting. They seemed to be highly appreciated by the visitors and were discussed and complimented and a great interest seemed to be manifest.

A public meeting will be held about August 20, at the time of the meeting of the county teachers association. A public speaker of note and reputation will be engaged for the occasion and we look forward to it as a success. The next meeting will be held on June 20, at Lancaster, the program to consist of papers by Drs. W. B. Hight, J. H. Rambo, A. J. Drake and B. F. Farmington.

J. B. BRIDGES, M.D., Secretary.

ST. JOSEPH-BUCHANAN-ANDREW COUNTY MEDICAL SOCIETY

The regular meeting of the St. Joseph-Buchanan-Andrew County Medical Society was held at their rooms Wednesday evening, April 16, President A. L. Gray in the chair. Thirty-two members were present.

The Society having been given positive assurance that Dr. Hadley Herbut of St. Joseph was engaged in the practice of medicine without being duly qualified, the following resolution was adopted:

WHEREAS, The attention of our Society has been called to the fact that Dr. Hadley Herbut of this city is engaged in the practice of medicine in the city of St. Joseph and county of Buchanan without being duly qualified and registered within this county.

The attention of the Society's Public Health and Legislation Committee, is called thereto and instructed to present this resolution to the prosecuting attorney of Buchanan county for his prompt action and consideration.

On motion of Dr. C. R. Woodson, seconded by Dr. W. J. McGill, the president was instructed to appoint a committee to confer with the Missouri & Kansas Telephone Company regarding the poor service that company is now giving the physicians of our city. The motion prevailed and the chairman appointed the following members to serve on this committee: Drs. C. R. Woodson, W. T. Elam and F. X. Hartigan.

Dr. Fassett suggested the advisability of some action being taken to secure headquarters for the members of our Society who propose to attend the state meeting at St. Louis and the American Medical Association at Minneapolis. Dr. C. W. Fassett and Dr. C. R. Woodson were appointed to investigate and report at our next regular meeting.

The following committee was appointed to draft resolutions on the death of Dr. Howard C. Rice and present the same at our next regular meeting: Drs. J. M. Doyle, V. W. Toothaker and J. J. Bansbach.

Dr. W. J. McGill presented a clinical case of "Anchylolysis of the Shoulder Joint."

The Society then proceeded with the regular business and the following papers were read:

"Fractures of the Skull," by Dr. Jacob Geiger.

"Fractures of the Femur," by Dr. J. T. Lynch.

"Fractures of the Vertebrae," by Dr. B. B. Simmons.

"Colles Fractures," by Dr. A. R. Timmerman.

Dr. C. R. Woodson led the discussion on the papers, which was closed by Drs. Jacob Geiger and B. B. Simmons.

The Society appointed a committee on Medical Service whose duties are: First. There shall be a standing committee known as the Committee on Medical Service composed of three members, divided into three

classes, one member retiring annually, his successor being appointed for a period of three years. To the end that the medical service within the territory of this Society may be kept in a state of efficiency it shall be the duty of this committee to bring the Society into active cooperation with all existing agencies therefor. As opportunity offers, it shall open the way for the Society to act in an advisory capacity and by suggestion to civil government or to private philanthropy desiring to promote medical service. It shall advise the Society regarding broad lines of organization of medical service for both present and future needs, along which efficiency may be obtained and waste of effort and capital avoided. It shall make an annual report of its work to the annual meeting of the Society.

The Society is endeavoring to eliminate contract lodge practice and contract family practice from among its members and has proposed the following amendment to its By-Laws:

"The Society shall be the judge of the qualifications of its members, but as it is the only door to the State Medical Association and the American Medical Association for physicians within its jurisdiction every reputable and legally qualified physician in Buchanan and Andrew counties who is a graduate of a reputable school of medicine, and who does not support or practice or claim to practice sectarian medicine and who does not engage in contract lodge practice or contract family practice shall be eligible to membership." They also propose to raise the annual dues to \$5.00.

W. F. GOETZE, M.D., Secretary.

WAYNE COUNTY MEDICAL SOCIETY

The Wayne County Medical Society met in Dr. Owens' office in Mill Spring, May 6, 1913, with Dr. G. W. Toney, president, presiding, the secretary, Dr. T. Freeman, being absent. Dr. Owens was appointed secretary pro tem.

An application from Dr. A. O'Bannon, formerly of Annapolis, Mo., and a member of our society, now of Princetown, Fla., asking for certificate of membership was received and same was forwarded to him.

Dr. Wm. S. Bailey, Leeper, was elected delegate to the state medical society and Dr. G. W. Toney, Piedmont, alternate.

Some reports of interesting cases were made and discussed.

Members present: Drs. G. W. Toney, J. E. Gilmer, Piedmont; W. S. Bailey, Leeper, and R. J. Owens, Mill Spring.

The meeting adjourned to meet at Piedmont, June 17, 1913.

R. J. OWENS, M.D., Acting Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicine" appear matters tending toward honesty in medicines and rational therapeutics, particularly the reports of the Council on Pharmacy of the American Medical Association and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 North Dearborn Street, Chicago, Ill.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

CHOLERA AGGLUTINATING SERUM.—The dried-blood serum of horses which has been injected with killed cultures of the cholera vibrio. It is intended for the diagnosis of cholera by the agglutination of suspected cholera vibrios. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, May 10, 1913, p. 1461).

DIPHTHERIA BACTERIN.—This is a Bacillus Diphtheriae vaccine claimed to be useful for the treatment of diphtheria-carriers and for immunization against diphtheria. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, May 10, 1913, p. 1461).

COLI VACCINE (POLYVALENT).—For description of Bacillus Coli Vaccine see N. N. R., 1913, p. 221. Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

GONOCOCCUS VACCINE (POLYVALENT).—For description of Gonococcus Vaccine see N. N. R., 1913, p. 223. Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

PNEUMOCOCCUS VACCINE (POLYVALENT).—For description of Pneumococcus Vaccine see N. N. R., 1913, p. 224. Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

STAPHYLOCOCCUS VACCINE (POLYVALENT).—Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

STAPHYLOCOCCUS ALBUS VACCINE (POLYVALENT).—Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

STAPHYLOCOCCUS AUREUS VACCINE (POLYVALENT).—For description of Staphylococcus Vaccine see N. N. R., 1913, p. 225. Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

STAPHYLOCOCCIC CULTURES.—These cultures consist of colonies of active living *Staphylococcus aureus*. They are intended for the elimination of diphtheria bacilli from the throats of diphtheria-carriers. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, May 10, 1913, p. 1461).

LUMINAL.—Luminal is phenyl-ethyl-barbituric acid. It is closely related to veronal, which is diethylbarbituric acid. It is a white, slightly bitter powder, almost insoluble in cold water. It is claimed to be a useful hypnotic in nervous insomnia and conditions of excitement of the nervous system. Merck & Co., New York (*Jour. A. M. A.*, May 17, 1913, p. 1541).

LUMINAL SODIUM.—Luminal sodium is the sodium salt of luminal. It is hygroscopic and readily soluble in water. It is used for hypodermic injection in 20 per cent. solutions. Merck & Co., New York. (*Jour. A. M. A.*, May 17, 1913, p. 1541.)

REFORM IN MEDICINES

DR. EDWARDS' OLIVE TABLETS.—On the one hand these tablets are advertised—to the public—that they owe their value to olive oil; then again they are referred to as "olive oil colored." Both claims are untrue. Their color is vivid green and examination in the A. M. A. Chemical Laboratory showed them to be an aloes pill (*Jour. A. M. A.*, May 3, 1913, p. 1378).

PRESCRIBING PROPRIETARIES.—While the main objections to the prescribing of proprietaries are based on a consideration of the public health and of scientific medicine, there is also an economic objection to their employment. "If you prescribe Antikamnia, Cystogen or Purgin and your patient feels better or gets well," said an old druggist to a young practitioner, "the patient will be a walking advertisement for the respective proprietaries. If, on the other hand, you prescribe acetanilid, hexamethylenamin or phenolph-

thalein, in the form of a regular prescription, he will recommend the prescriber—you—to his best friends." (*Jour. A. M. A.*, May 3, 1913, p. 1378.)

FRIEDMANN SELLS OUT.—Last November Friedrich Franz Friedmann read a paper before the Berlin Medical Society announcing that he had succeeded in producing a race of avirulent tubercle bacilli by which he claimed to be able to produce curative effects in all but the most advanced cases of tuberculosis and to immunize children against the disease. While Friedmann might have had ample opportunity to test the value of his preparation in Germany, he preferred to come to this country—for the million dollars offered by a wealthy philanthropist. Now it is announced that a deal has been consummated through which he is to get a large sum of money immediately, with great prospects for the future. It is safe to conclude that he has realized the ideal he had in mind when he landed on our golden shores. According to newspaper reports branch "institutes" are to be established in every state by a syndicate formed by Dr. Friedmann and his promoters. These institutes will make their own cultures and thus, by a technicality, will evade the federal law which places all serum and vaccines under the control of the Public Health Service (*Jour. A. M. A.*, May 3, 1913, pp. 1365 and 1367).

A GOOD PRINCIPLE.—*American Medicine* says editorially: "No physician has a right to employ any uncertain and possibly dangerous remedy in the treatment of disease in human beings until he knows all that anybody knows concerning its composition, character and action." And yet this journal advertises Phenalgine, Sanmetto, Bannerman's Consumption Cure, Campho-Phenique, Anasarcin, Sal Hepatica, Phenol-Sodique, etc., all of which are "uncertain and possibly dangerous" remedies. (*Jour. A. M. A.*, May 3, 1913, p. 1368.)

DUKET CONSUMPTION CURE.—Ex-Senator Wm. Lorimer who is financing the Duket Consumption Cure has asked governors of all states to send a representative to Chicago to watch the "cure." It is also stated that he has induced the U. S. Public Health Service to make an investigation. After graduating from the Hahnemann Medical School of Chicago in 1893 and practicing in several states he opened the "Tubercular Sanatarium Company" at Findlay, Ohio, where he used a so-called serum said to be an "antiseptic lymph" which was stated not to be made from any tubercle bacilli and to be used intravenously. The Duket "cure" is being foisted on the public by a man who has no scientific standing and has had little or no scientific training. (*Jour. A. M. A.*, May 10, 1913, p. 1476.)

TONGALINE.—Tonga is said to consist of a mixture of roots and barks which was first used by the "medicine men" of the Fiji Islands. While its therapeutic efficacy soon became apparent the word tonga has been perpetuated by calling a salicylate mixture "Tongaline." Each fluidram has been claimed to contain: Fluid Tonga, 30 grains; Extract of Cimicifuga Racemosa, 2 grains; Sodium salicylate, 10 grains; Pilocarpin salicylate, 1-100 grain, and Colehiacin salicylate, 1-500 grain. Some of the claims for Tongaline are, "It cures rheumatism, neuralgia, grippe, gout, headaches, malaria, sciatica, lumbago, tonsillitis, heavy colds and excess of uric acid." The greatest objection to the use of such a nostrum by the medical profession is that it prostitutes the science of medicine and sets back the clock of therapeutic progress. (*Jour. A. M. A.*, May 10, 1913, p. 1476.)

ELIXIR TONGA COMPOUND.—The extensive advertising of Tongaline has kept alive a feeling that tonga has certain valuable—if mysterious—properties. As a result almost every large pharmaceutical house puts out a tonga preparation in the hope of reaping some financial benefit from the advertising of Tongaline. If

Tongaline were not advertised, tonga would be forgotten and relegated to the therapeutic scrap-heap. Most of the tonga mixtures appear in the form of compound elixir of tonga, which are said to contain tonga, but depend for their action in the main on the salicylates which they contain (*Jour. A. M. A.*, May 10, 1913, p. 1478).

COLLYRIUM, WYETH.—In reply to an inquiry regarding the composition of Wyeth's Collyrium the manufacturers write that "being a corporation" they "are not at liberty to disclose the various formulas" of their preparations. In other words, John Wyeth & Brother expect physicians of this country to prescribe "patent medicines" of whose composition they must be ignorant. Analysis of Collyrium, Wyeth, in the A. M. A. Chemical Laboratory showed its composition to be essentially: antipyrin, 0.41 gm.; sodium borate, 0.55 gm.; boric acid, 2.14 gm., and water to make 100 c.c. The secret of such a formula must indeed be a "valuable asset" (*Jour. A. M. A.*, May 17, 1913, p. 1557).

DIATUSSIN.—According to an advertising circular issued by E. Bischoff & Co., purporting to be a "reprint from the *Munich Medical Weekly*" Diatussin is "a dialysate of *Herbae Thymi* and *Pinguiculae*." The latter is said to be known in the Alps as "blue fatweed." The only further information as to the composition of this preparation is the statement that "the dialysate of this blue fatweed is said by the manufacturer to contain a proteolytic ferment." The writer of the article speaks of a "procession of mothers" with their children affected with whooping-cough who came to him from a neighboring village. Yet he admits that the small number of cases which he has had permit of no definite conclusions and that his article is written to interest others in the nostrum (*Jour. A. M. A.*, May 17, 1913, p. 1558).

MISCELLANY

"DR." H. D. EASTERLY FINED

One more medical faker was landed behind the bars when "Dr." H. D. Easterly was convicted of practicing medicine without a license and fined \$50 in the Ralls County court recently. He was placed in jail pending payment of the fine. For the information of members in other counties, who may want to know the procedure followed under such circumstances, we publish the information issued by the prosecuting attorney and the instructions of the court to the jury.

This case is typical of the devious methods pursued by medical fakers generally. If more county societies would institute proceedings of this nature against persons violating the law we believe there would be more convictions. To be successful, however, the prosecuting attorney must be in sympathy with the effort to protect the people and willing to do his part in earnest and to the best of his ability, as did Mr. Barry, the prosecuting attorney for Ralls County.

In the prosecution of Easterly, an interesting sidelight was thrown on the practices of medical fakers, which discloses somewhat graphically how it often happens that a town suddenly becomes the camping ground of some blatant quack claiming miraculous powers in healing the sick. The newspaper advertising, the high silk hat, the long-tailed coat, the unintelligible gibberish concerning disease and its treatment commonly indulged in by these wonder-working individuals, may be only a "grand-stand play" with the single object in view of attracting the special attention of some person previously spotted and labeled to become the victim of a well-laid scheme. So it was in the Easterly case.

There is a certain farmer living near Center, in Ralls County, who is getting old and childish, hence he is an easy prey to the sharp practices of quacks and charlatans of all kinds. One of these gentry discovered him last year and bled him to the extent of \$150 or more. Soon after his departure an optometrist appeared on the scene and relieved the old gentleman of "all the traffic would bear," then passed on to Montgomery County. In the town of Wellsville he found Easterly doing the nerve specialist stunt. In the exchange of notes and comparisons of their successes and failures the spectacle vender gave Easterly the tip about the childish old farmer in Ralls County. The "noted English specialist" immediately deserted Wellsville for the more fertile territory about Center and the immediate prospect of "pulling" the old farmer. He advertised in the newspapers of Center that he was ready to do business with all poor sufferers "from nervous diseases, male and female, consultation and examination free." He soon had the old farmer on his staff and in very short time had separated this guileless creature from \$400 of his savings. This sudden prosperity was too much for the discretionary powers of the "nerve specialist" and proved his undoing. With the braggadocio characteristic of his kind he boasted of his trickery in working the old man, told of the spectacle vender's previous harvest and the tip furnished by that industrious faker, and chuckled over the prospective flow of dollars still to come through the slick little game he was playing. The scheme became a topic of conversation among traveling men and others about the hotel, when the sheriff of Center learned of the affair and took a hand in the matter. Enlisting the assistance of the physicians of Center and New London, the county seat of Ralls County, and assured of the support of the prosecuting attorney, the sheriff arrested Easterly on an information issued by the prosecuting attorney. The pseudoscientist was haled before court and jury and his career cut short with a fine of \$50. Being averse to parting with the money, he was placed in the county jail to study over the subject.

It may be that Easterly will try his little game in other parts of the state when he satisfies the sentence of the Ralls County court. Of course he will wander to fields far removed from the northeast part of the state, and therefore we direct the attention of our members to his practices. All societies should be on the lookout for him and "land on him" before he can embezzle and defraud their people should he appear in the community. If his advertisement appears in the newspapers it will be an easy matter to make a case against him, and with the conviction in Ralls County already obtained there should be no difficulty in jailing him and compelling him to pay a good-sized fine to be placed in the coffers of the county.

The information containing the charge against Easterly and the court's instruction to the jury follow:

AMENDED INFORMATION

State of Missouri, County of Ralls, ss. In the Circuit Court of Ralls County, Missouri, February Term, 1913.

State of Missouri, Plaintiff

vs.

H. D. Easterly, Defendant.

Joseph F. Barry, Prosecuting Attorney within and for the County of Ralls and State of Missouri, informs the Court upon his official oath that at and in the County of Ralls and State of Missouri, on or about the 28th day of February, 1913, H. D. Easterly did wilfully and unlawfully represent and advertise himself so as to indicate that he, the said H. D. Easterly, was then and there authorized to practice and practiced medicine and surgery and did then and there represent and advertise that he, the said H. D. Easterly, was authorized to treat and treated the

sick and persons afflicted with bodily and mental infirmities, in this to-wit, he, the said H. D. Easterly then and there caused to be printed, published and circulated in *The Center Herald*, a weekly newspaper printed and published in the City of Center, Ralls County, Missouri, and having subscribers and a circulation in said county, the following representation and advertisement to-wit:

"Dr. H. D. Easterly, the noted English specialist on all nervous diseases, male and female, is now in Center, Mo., at the Cottage Hotel, where he will remain for one week to receive patients. Consultation and examination free."

He, the said H. D. Easterly not having then and there a license for the practice of medicine and surgery from the State Board of Health for the State of Missouri, and he, the said H. D. Easterly, not being then and there a physician lawfully registered on or prior to March 12, 1901, contrary to the form of the statute in such cases made and provided and against the peace and dignity of the state.

JOSEPH F. BARRY,

Prosecuting Attorney, Ralls County, Mo.

INSTRUCTION NO. I

The Court instructs the jury that if you find from the evidence in the cause, beyond a reasonable doubt, that the defendant, H. D. Easterly, at the County of Ralls and State of Missouri, on or about the 28th day of February, 1913, or at any time within one year next before the 3d day of March, 1913, caused to be printed, published and circulated in *The Center Herald*, a weekly newspaper printed and published in the City of Center, Ralls County, Missouri, and having subscribers and circulation in said county, the following:

"Dr. H. D. Easterly, the noted English specialist on all nervous diseases, male and female, is now in Center, Mo., at the Cottage Hotel, where he will remain for one week to receive patients. Consultation and examination free."

And if you further find from the evidence in the cause that through and by means of said publication the defendant did wilfully represent and advertise himself, so as to indicate that he was then and there authorized to treat, and did treat the sick and persons afflicted with bodily and mental infirmities; and if you further find that said defendant did not then and there have a license for the practice of medicine and surgery from the State Board of Health of the State of Missouri, you will find the defendant guilty as charged in the information, and assess his punishment at a fine of not less than fifty dollars nor more than five hundred dollars, or at imprisonment in the county jail for a period of not less than thirty days nor more than one year, or at both such fine and imprisonment.

INSTRUCTION NO. II

The Court instructs the jury that if you find from the evidence that the defendant at the County of Ralls and State of Missouri did represent and advertise himself so as to indicate that he was then and there authorized to treat and treated the sick or others afflicted with bodily or mental infirmities in manner and form as set forth in instruction Number One, then you are further instructed that the fact, if it is a fact, that the defendant did not actually treat any person is no defense to this prosecution.

INSTRUCTION GIVEN AT REQUEST OF DEFENDANT

The Court instructs the jury that unless you find from all the evidence in the case that the defendant inserted or caused to be inserted the alleged advertisement in the *Center Herald*, with the intent and purpose on his part to invite persons sick or afflicted to come to him and be treated by him for bodily or mental ailments, then your finding should be for the defendant.

POLITICS IN ASYLUM MANAGEMENT

In spite of past failures the physicians of Missouri are continuing their agitation in favor of taking the State Insane Asylums out of politics. They are right, and they will win.

There is no more reason for considering the politics of an asylum superintendent than there is for making school appointments rewards for political service. Asylum management is work for a specialist. It demands a man of thorough scientific training in a difficult branch of medicine and one who combines with such training all the qualities of a good executive. Such men are not easy to get and they do not seek positions in which the tenure is dependent on the direction of every political wind. There are better places for them in the universities, private institutions and state institutions in the many states which offer security of tenure as one reason for accepting the management of their asylums.

The inmates of state asylums are sent to them in most cases through the operation of laws from which they have no escape. They are compelled to accept the treatment which the state offers them. This fact puts the state under the highest obligation to use every means for securing for its insane wards the very best treatment which science and humanity can devise. The Missouri system is not the best for attaining that standard.—*St. Louis Republic*.

BOOK REVIEWS

PSYCHANALYSIS: ITS THEORIES AND PRACTICAL APPLICATION. By A. A. Brill, Ph.D., M.D. Chief of the Neurological Department of the Bronx Hospital and Dispensary; Clinical Assistant in Psychiatry and Neurology at Columbia University Medical School. Octavo of 337 pages. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$3.00 net.

The author aims to give the results attendant on Freud's sex theories. He endeavors to remove erroneous conceptions held regarding psychoanalysis, to stimulate a more general interest in his original works and to give a practical report of the results of Freud's theories applied.

Though some of us may disagree with the author none will deny the attraction of the exposition.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M.D., at Mercy Hospital, Chicago. Volume I, Number vi. (December). Octavo of 153 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Published Bi-Monthly. Price per year: Paper, \$8.00. Cloth, \$12.00.

This number completes the first volume of the clinics. A majority of the reports are fracture cases, with two on treatment of malignant tumor, and one salpingitis.

An index covers the contents of the first volume.

PRINCIPLES AND PRACTICE OF OBSTETRICS. By Joseph B. De Lee, A.M., M.D. Professor of Obstetrics at the Northwestern University Medical School. Large octavo of 1,060 pages, with 913 illustrations, 150 of them in colors. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$8.00 net; Half morocco, \$9.50.

A monumental work. The author has here given the profession a book that contains the conclusions of the greatest authorities and the gist of the latest deliverances on the subject.

The text is divided into four parts. The physiology; conduct and psychology of pregnancy, labor and the puerperium, diagnosis and operative obstetrics.

Special emphasis is placed on diagnosis.

The volume possesses a comprehensive index, and the typography of the book is excellent.

AN ATLAS OF THE DIFFERENTIAL DIAGNOSIS OF THE DISEASES OF THE NERVOUS SYSTEM. By Henry Hun, M.D. Professor of the Diseases of the Nervous System in Albany Medical College. Cloth, 200 pages. The Southworth Co., New York, 1913. \$4.00.

The author hopes by means of this atlas to make nervous diagnosis plain for the general practitioner and neurologist alike. The chief feature of the work is the diagnostic chart, on one side of which is an important system to be analyzed; on the other side is given a list of all the diseases in which this manifestation appears. Between the beginning and the end of the diagnosis a series of tests are inserted which constitute the examination of the patient.

The method does not replace actual observation in the least and acts as a guide for simple and direct examination.

The atlas is very complete and should prove of great value to the practitioner and to the specialist in nervous diseases.

HANDBOOK OF DISEASES OF THE RECTUM. By Louis J. Hirschman, M.D., President of the American Proctologic Society, Lecturer on Rectal Surgery and Clinical Professor of Proctology, Detroit College of Medicine. Revised and Rewritten Second Edition. 338 pages. Royal octavo, 172 illustrations, including four colored plates. C. V. Mosby Co., St. Louis. Price, \$4.00.

The general practitioner will find this book a useful addition to his library, and the profession as a whole will be glad to receive this edition of so excellent a labor.

The work has been thoroughly rewritten and contains a number of new illustrations which lend clarity to the text.

GOLDEN RULES OF SURGERY. Vol. I. Of the Golden Rule Series, especially intended for students, general practitioners and beginners in surgery. By Augustus Charles Bernays, A.M., M.D., F.R.C.S., Eng. Life Member of the German Society for Surgeons of Berlin, Chief Surgeon Lutheran Hospital and for Twenty Years Professor of Anatomy and Surgery. St. Louis. Second Edition, Revised and Rewritten by William Thomas Coughlin, M.D., Assist. Prof. of Surgery, Chief of Clinic, St. Louis University Medical School, St. Louis. 280 pages. Octavo. C. V. Mosby Co., St. Louis. Price, \$2.25.

The profession is familiar with the first edition of this work. Dr. Coughlin has by his careful supervision given an added value to the volume and greatly extended its usefulness in bringing it across the six years which have elapsed since the first edition appeared.

THE CAREER OF DR. WEAVER.—A Novel, by Mrs. Henry Baekus. Cloth, illustrated; 12mo., 379 pp. L. C. Page & Co., Boston, 1913.

Considering the many points which the authoress has brought out in this book, it is little wonder that she has been unable to present any one of them at great length. It is, however, a commendable effort as well as no easy task to deal with the moral and ethical problems of the medical profession. When certain methods such as "fee-splitting," the private hospital, the "free" clinic, writing essays and employing reprints thereof for advertising purposes, are under discussion in a novel it is high time that the medical profession pay more heed to these subjects. We have altogether too many like "Dr. Weaver" among us. When we read that "he produced a speculum from his instrument bag and proceeded to examine her throat," we think this phrase might be corrected; still the book is so singularly free from other medical mistakes that this can be pardoned. The consideration of a national department of health might assist in gaining friends for this movement.

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